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ABSTRACT

This is the report of a study conducted to determine the effect of six variables on the career choice of 995 black college students, most of them from rural South Carolina. Study design, sample selection, and data collection methods are outlined; and related literature is briefly reviewed. The relationship between career choice and each independent variable is then presented and discussed. It was found that (1) rural residents, despite career choice, come from lower socioeconomic level families and are more concerned about the cost of post-baccalaureate education than urban and out-of-state residents; (2) students who choose nontraditional majors have more positive concepts of their leadership, academic, and athletic abilities than do their cohorts who choose traditional careers; and the nontraditional majors express less concern about the cost of post-baccalaureate education; (3) political participation of parents is not a factor in student career choices; and (4) secondary school environment exerts little influence on career choices, aside from some measure of teacher influence. Recommendations relating to increased assistance and counseling for rural minority students are made. Appendices include a bibliography; the survey instruments; histograms of most frequently chosen majors; a rank order of traditional and nontraditional majors; and a table showing distribution of subjects by county of residence. (CJM)

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Research Bulletin No. 31 September, 1983

FACTORS THAT INFLUENCE THE CAREER CHOICES OF RURAL MINORITY STUDENTS

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ABSTRACT

This exploratory study, involving 995 black college students in 1981 and 1,127 in 1982, examined the relationship between career choice and each of the following variables: (1) socioeconomic level, (2) consideration given to the cost of post-baccalaureate education, (3) level of parental political participation, (4) secondary school environment, (5) motivation, and (6) self-concept. The relationship between community of residence and each of the specified independent variables was also examined.

With the exception of the Gough Home Index, which was used as a measure of socioeconomic level during Phase II, the instrument was designed by the principal investigator with the assistance of the research staff. Freshmen were administered the questionnaire in the fall of each academic year during the freshman seminar class periods. Data were collected from a random stratified sample of seniors during regular class periods.

Contingency table analyses were used to examine the relationship between career choice and each of the independent variables. The chi = square test of difference was used to determine whether relationships were statistically significant at the .05 level; gamma coefficients were used to assess the strength of relationships.

The findings relative to the relationship between career choice and socioeconomic level show no statistically significant relationship. The relationship between socioeconomic level and residence, however, was found to be statistically significant. The findings with regard to career choice and cost of post-baccalaureate education are not consistently statistically significant for either freshmen or seniors. During both phases of the research, a statistically significant relationship was found between where one lives and how much consideration was given to the cost of post-baccalaureate education. The analysis of data shows no statistically significant relationship between career choice and level of parental political participation. The findings indicate there to be no statistically significant relationship between student career choices and (1) size of high school, (2) number of counselors available in the high school, (3) level of high school desegregation, (4) level of student participation in extracurricular activities, (5) racial/ethnic identity of the primary in-school influencer, and (6) communication with the high school counselor. The findings relative to the relationship between career choice and key influencers reveal that (1) the teacher was cited as the primary in-school influencer of student career choices, (2) traditional majors more often indicated that no one in particular guided their career choices, and (3)

an average of 65% of both traditional and nontraditional majors indicated that the key career choice influencers were persons outside of the school setting. In most instances no statistically significant relationship was observed between the motivational levels of traditional and nontraditional majors, regardless of residence. The findings relative to career choice and self-concept indicate that traditional and nontraditional seniors, regardless of residence, differed significantly on only one of 10 measures. However, statistically significant differences were observed between traditional and nontraditional freshmen, when controlling for residence, on four of the 10 self-concept measures.

The following conclusions are drawn based upon the results of this investigation. Rural residents, despite career choice, come from lower socioeconomic level families and express more concern about the cost of post-baccalaureate education than urban and out-of-state residents. Generally, South Carolina State College students who choose traditional majors express more concern about the cost of post-baccalaureate education than do students who choose nontraditional majors. Political participation of parents is not a factor in student career choice. The secondary school environment exerts little influence on student career choice, aside from some measure of teacher influence. South Carolina State College students, without regard to career choice or residence, have high levels of status motivation. Finally, freshmen who choose nontraditional majors have more positive concepts of their leadership, academic, and athletic abilities than do their cohorts who choose traditional careers.

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INTRODUCTION

Although individuals decide to attend college for various reasons, the choice of a major is presumably related to occupational and career goals. The choice of a career is one of the most important decisions an individual will make in a lifetime; this fact is especially true for those persons whose primary opportunity for escaping poverty lies in the development of salable skills and talents. An individual's career choice will influence his chances of finding a job, the nature--and to some extent the geographic location--of his work environment, the initial as well as potential level of earnings, opportunities for lateral job movement and advancement, and to some degree his life style. In short, one's choice of a career greatly affects his life chances.

Federal intervention for the easing of societal constraints which have historically limited the ways and means by which black Americans could develop and utilize their talents and skills has resulted in increased educational opportunities and expanded employment opportunities. Concomitantly, South Carolina State College, like other historically black educational institutions, continues to revise and expand curricular offerings in order to provide young adults, particularly blacks, with opportunities for nontraditional career options, in accordance with expanded employment opportunities and the demands of the job market. The consequent availability of a broader range of academic programs has led to a decline in the number of persons selecting a major in areas of teacher education.

Assessment of enrollment data for the South Carolina State College School of Industrial Education and Engineering Technology for the period 1979 through 1982 indicates that there has been an increase in the number of students selecting a major in the various areas of engineering. The most recent South Carolina State College self-study report for the period 1974 through 1979 indicates that there has been an increase in the number of students selecting a major in the areas of accounting, business administration, biology, pre-nursing, political science, and computer science. Although the number of students selecting a major in the areas of foreign language and English is comparatively small, there was a slight increase in the number of majors. There was generally no appreciable gain in the number of students selecting a major in chemistry, physics, pre-agriculture, sociology, rehabilitative counseling, and history.

According to a 1980 United States Census report, the number of black students attending college tripled between 1966 and 1978. The number of blacks majoring in several fields saw a sharp increase; " in

business enrollment grew from 41,000 to 220,000, in biology and the health and medical fields the number increased from 27,000 to 113,000, and in engineering the number rose from 12,000 to 41,000" (US Bureau of the Census, p. 2). However, there was no significant gain in the number of black students enrolled in agriculture, mathematics, or physical science. In addition, black students were less likely than any other students to major in English and liberal arts.

Even a superficial comparison of the national and local trends in the selection of a major field of study by black students reveals similarities. While it is generally accepted that such variables as changes in labor market demands and availability of more equal educational opportunity may affect the number of students enrolled in higher education institutions, there remain numerous unanswered questions regarding why students, particularly rural minority South Carolina students, tend to select (within the framework of available majors) one field of study over another.

Several theories attempt to explain the process by which one arrives at a vocational/career choice; among the major theories are the works of Ginzberg, Ginsburg, Axelrad, and Herma (1951), Super (1953), Roe (1956), Holland (1973), and Krumboltz (1979). In addition there are extensive empirical studies of selected factors which influence the vocational aspirations of rural and/or urban high school students. However, most of these studies have utilized populations outside of the South. Few studies were found that examine factors which influence the career choices of students enrolled at Southern historically black colleges.

It is the intent of this investigation to identify the relative influence of selected variables on the career choices of black college students, most of whom come from rural South Carolina. Using choice of college major as an index of career choice, the research is an exploration of the factors that may impact upon the career choices of South Carolina State College students.

It is expected that the results of this research will contribute not only to filling the gap in the literature, but also to the development of an improved advisement and counseling system at both the high school and the undergraduate levels. Improved advisement and counseling should have a positive impact on student and faculty productivity as well as improve the chances for student success in the "work world." It is hoped that this research will make a substantial contribution to the advisement systems in rural South Carolina secondary schools and at the college level.

OBJECTIVES OF THE STUDY

The general objective of this investigation is to explore the relationship between the career choices of black college students and selected variables, including community of residence. The specific objectives are as follows:

1. To examine the relationship between career choice and socioeconomic level.
2. To determine whether there is any difference in the career choices of students who give little consideration to the cost of education and training prior to the selection of a major and their counterparts who give much consideration to the cost of education and training prior to the selection of a major.
3. To examine the relationship between the career choices of students and the levels of their parents' political participation.
4. To examine the relationship between career choice and secondary educational environment as measured by each of the following variables: size of school, level of desegregation, communication with counselors, number of counselors, accreditation status, curriculum track followed, level of participation in extracurricular activities, and identity of key influencer.
5. To examine the relationship between career choice and motivational level.
6. To examine the relationship between career choice and level of self-concept.

METHOD AND PROCEDURE

Study Population

Phase I

The subjects surveyed during Phase I (1980-81) were 995 South Carolina State College students; 445 were males and 550 were females. Of the 995 students surveyed, 807 were first time entering freshman students and 188 were seniors. The study population constituted 91% of the entering freshman class and a random 38% sample of the senior class (stratified according to college major).

Phase II

The subjects surveyed during Phase II (1981-82) were 1,127 South Carolina State College students; 485 were males and 637 were females. This group consisted of 778 first time entering freshman students and 344 seniors. The study population constituted 91% of the entering freshman class and a random 61% sample of the senior class (stratified according to major area of study). Of the 1,127 respondents, five neglected to supply demographic information.

Data Collection

Freshmen were administered the questionnaire in the fall of each academic year during the freshman seminar class periods. Data were collected from a random stratified sample of seniors during regular class periods. The study population consists of a representative sample of students majoring in all of the fields of study offered by the college.

Instrumentation and Variable Measurement

With the exception of the Gough Home Index, which was used as a measure of socioeconomic level during Phase II, the instrument was designed by the principal investigator with the assistance of persons who were employed part-time with the research project. The instrument consists of nine sections; a description of each section of the instrument and an explanation of how each variable was operationalized follows.

Section I: Demographic Items

Included in this section are open-end items which solicited the student's age, sex, permanent home address (city, county, and state), name of high school, and location of high school.

These data were utilized primarily to assign urban, rural, or out-of = state status to each of the respondents. Urban residence was operationalized as those areas designated as Standard Metropolitan Statistical Areas in the 1980 United States Bureau of the Census Supplementary Report for the state of South Carolina. Student responses were coded: (1) urban (SMSA in South Carolina); (2) rural (all South Carolina places not listed as Standard Metropolitan Statistical Areas); and (3) out-of-state (all places outside of the state of South Carolina).

Section II: Career Choices

Section II contains a list of the 52 majors offered by South Carolina State College in July, 1980. Respondents were instructed to indicate their college majors by placing a check in the appropriate box. (In order to determine whether college major was congruent with career plans, a random sample of students was interviewed informally; 87% of the respondents interviewed indicated that they plan to enter careers which are congruent with their college majors.) Since college major was used as an index of career choice, the 52 possible responses were divided into two categories and recoded as: (1) traditional careers and (2) nontraditional careers. Those majors associated with the historical options of blacks, such as teacher education, drama, art, home economics, and social work, were categorized as traditional careers. Majors in areas that have more recently become options for blacks, such as areas of business, engineering, behavioral science, foreign language, and the preprofessional fields of the natural sciences--as well as chemistry and physics--were categorized as nontraditional careers.

The two other items included under Section II are: (1) Who was most influential in guiding your selection of a major? Do not give name, give relationship or position of the individual, such as teacher, counselor, coach, etc. and (2) Do you plan to pursue a graduate or professional degree after you have earned the bachelor's degree? (yes/no).

Section III: Socioeconomic Level

During Phase I Census Bureau classifications for education and occupation of parents/guardians were used as measures of socioeconomic level. Due to a preponderance of missing observations these measures of socioeconomic level was not utilized during Phase II.

With the permission of the author, the Gough Home Index, a set of 22 items for assessing socioeconomic level, was used during Phase II. This instrument was originally designed for use with elementary and

high school students; respondents were instructed (as recommended by the author) to give answers based on living circumstances at home during the high school years.

Section IV: Political Participation of Parents

The level of parental political participation was determined by asking students 15 questions related to the political activities of their parents. More specifically, the questions relate to parental membership in political and civic organizations, parental voting behavior, and parental financial support of political activities.

Section V: Secondary Educational Environment

The nature of the students' secondary educational environment was determined by asking them 10 questions related to the size of their high schools, the number of counselors, the degree of interaction with school counselors, the level of desegregation of the high school, the curriculum they followed, and other questions related to the high school staff.

During Phase II, the instrument was expanded to include an item which assessed the level of student participation in high school extracurricular activities. Students were asked to indicate, from a list of 25 activities, which activities they were involved in during the high school period. Also accreditation status of the high school was obtained from the Directory of South Carolina Schools, 1979-1980.

Section VI: Motivation

This section of the instrument, designed to measure the respondent's level of motivation, consists of 10 Likert-type items related to life goals and work values. Respondents were asked to indicate the degree of importance of each item.

Section VII: Self-Concept

In 1981, students were asked to respond to 10 Likert-type items that were designed to assess five dimensions of self-concept: academic ability, leadership ability, athletic ability, personality, and physical appearance.

In 1982, the section of the instrument designed to measure self-concept consisted of 20 dichotomously paired adjectives. The respondents were asked to check, in each pair of terms, the adjective

which best described the way they perceived themselves.

Section VIII: Consideration of Cost of Education/Training

This section of the instrument, designed to measure the extent to which respondents considered the cost of education and training prior to the selection of a major, consists of two questions with the fixed responses of: very much; somewhat; very little; and not at all.

Section IX: Frequency of Change of Major

Although not specified as a study variable, Section IX consists of questions designed to determine the frequency with which seniors changed majors since their initial enrollment at the College and also to ascertain their reasons for changing their majors. Appendix A provides a copy of the instruments.

Data Analysis

The data generated from both Phase I and Phase II were analyzed according to selected procedures outlined in the Statistical Package for the Social Sciences. More specifically, one-way frequency distributions were obtained to determine the basic distributional characteristics for each of the variables.

Contingency table analyses were used to examine the relationship between career choice and each of the six variables enumerated in the objectives. The relationship between residency and the specified independent variables was also examined. The chi-square test of difference was used to determine whether relationships were statistically significant. Roscoe (1975) pointed out that "most behavioral research is conducted at the .01 and .05 levels of significance. However, in exploratory research, the .10 and .20 levels may be more appropriate" (p.182). For this study, the .05 level rather than the .10 level was chosen as the level of significance in light of the controversy regarding the use of tests of significance with large study populations. Since the research is exploratory (employing a one-tailed test), the .05 level of probability was selected because a more powerful test might well "cover up" useful information for further research.

In some cases, individual items were extracted and cross-tabulated against career choice and/or residency. Gamma coefficients were utilized to index the strength of relationship between the dependent variable and each independent variable. During Phase II, factor analysis

was used to reduce items related to motivation and self-concept prior to the formation of scales. Also, responses to the Gough Home Index, previousely validated, were summated and trichotomized in order to establish high, middle, and low socioeconomic levels. The statistical correlation of responses to the parental political participation items yielded an Alpha coefficient of .70. Given this summary of the strength of relationship among the items, the responses were then summated and trichotomized in order to establish high, moderate, and low levels of parental political participation.

REVIEW OF RELATED LITERATURE

This review is divided into six sections and encompasses a broad range of theories and research related to: (1) socioeconomic status/level and career choice; (2) expectations regarding cost of education and training and career choice; (3) motivation as a factor in career choice; (4) secondary educational environment, role models, and career choice; (5) political participation of parents and student career choice; and (6) self-concept/self-esteem in occupational choice.

Socioeconomic Status and Career Choice

Blau and Duncan (1967), among many others, have shown that the socioeconomic status of the family into which one is born and the community in which one is reared, as well as one's racial identity, exert a significant influence on occupational life, ascribing a status at birth that influences one's chances for achieving any other status later in life. Along the same line, Havighurst and Neugarten (1962) point to social class differences in child rearing practices. Lower-class families are often unable, due to economic and social reasons, to provide adequate physical, social, and intellectual conditions necessary for optimal growth and development of children.

That the family plays a principal role in the vocational decision making process is implicit in theories of vocational and/or career choice. The theories of Ginzberg et al. (1951), Super (1953; 1963), Roe (1957), and Krumboltz (1979) are among the best know systematic explanations of why an individual chooses one career over another.

Ginzberg et al. (1951), as a result of their research, proposed that individuals go through three major periods in formulating occupational choice: the fantasy period, occurring before age 11; the tentative period which takes place between the ages of 11 and 17; and the realistic period which begins with the "normal" college age and continues through the period of graduate education. In addition, they pointed out that parental attitude is important in job selection. It was found that children of white-collar workers sought to achieve the same socioeconomic level as their parents, whereas the children of blue-collar workers usually sought to surpass the occupational aspirations and employment levels of their fathers.

Super (1953; 1963), expanded the work of Ginzberg and further indicated that the process of vocational choice is a lifelong process. An individual, in choosing an occupation, seeks to implement his concept of self. Self-concept, on the other hand, is influenced by environment. Ac-

cording to Osipow (1975), an oppressive environment is likely to give rise to low self-concept.

Roe (1957), drawing upon psychoanalytic and personality literature, hypothesized that vocational choice is the result of early childhood experiences (which tend to vary with socioeconomic background). Acknowledging that individual differences are due in part to inheritance of genetic differences, the author maintained that patterns of early childhood experiences with parents, such as emotional concentration on the child and avoidance or acceptance of the child, influence the development of two basic orientations: (1) orientation toward people and (2) "orientation not toward people." Individuals oriented toward people choose careers in service, business, art, and entertainment, whereas those individuals oriented "not toward people" choose occupations in scientific, technological, and non-people oriented fields.

Krumboltz's (1979) social learning theory proposes that an individual is more likely to express a preference for a course of study, an occupation, or the tasks and consequences of a field of work, if that person has been consistently and positively reinforced by a valued person who models and/or advocates engaging in the course, occupation, or field of work.

Also, Bucher (1979), in his discussion of social structural constraints on career decision making, emphasized that one's family status is a pervasive social constraint which shapes and molds development without awareness. Different opportunity structures may give rise to varied career aspirations; for example, children from low socioeconomic levels in rural locations may have lower aspirations such as being a grade school teacher rather than a lawyer, doctor, or college professor.

In addition to theories of career choice/vocational choice, there exist extensive empirical studies that are related to the influence of social class, the family, significant others, and community of residence on career choices and career aspirations. A representative sample of such studies is cited below.

Galler (1951) studied 104 boys and 103 girls in two Chicago elementary schools to ascertain the influence of social class on children's occupational choices. The results of the study indicated that social class exerts an important influence on children's choices of occupations as well as on the reasons they give for choosing an occupation.

Steinke and Kaczkowski (1960) studied 100 ninth grade girls enrolled in two health classes at Wilbur Wright Junior High School in Milwaukee. The purpose of the study was to assess the influence of parents on the occupational choices of students. In the first part of the questionnaire

the girls listed their primary occupational choices and ranked factors they thought influenced their choices. In the second part the girls' mothers were asked to list their preferences of an occupation for their daughters, the jobs at which they were currently employed, and their own mothers' occupations. The findings indicated that: (1) mothers' influence on their daughters' occupational choice was high; (2) three times as many daughters chose a professional occupation as there were mothers employed at that level; and (3) 76% of mothers and daughters preferred the same level, activity, or enterprise.

A study by Bennett and Gist (1962)--involving 202 black males, 210 black females, 250 white males and 211 white females from four large Kansas City, Missouri, high schools--was conducted to determine the influence of the family and social class attitudes on the occupational and educational aspirations of urban high school students. The results indicated that aspirations and career planning show little variation among social classes. But occupational plans by themselves varied significantly with class. Regardless of race, maternal influence appeared to be stronger and more effective compared to paternal influence at lower-class levels.

Krauss (1964) studied 387 working-class and 267 middle-class high school students in four San Francisco Bay area high schools for the purpose of examining sources of educational aspirations among working = class youth. The results of the study indicated the following conditions are positively associated with the high aspirations of working-class youth: having family members and/or friends who have had college experience; the high occupational status of the father; having peer associates who aspire for college; and having a high level of participation in high school extracurricular activities.

Sewell and Orenstein (1965) conducted a study with 9,986 Wisconsin high school seniors to determine the influence of community of residence on occupational choice. Boys, but not girls, from rural areas and smaller communities were found to have lower occupational aspirations than those from large urban areas.

In a study of a randomly selected sample of Wisconsin high school seniors, 10,321 of whom were followed through the college years (1957-1964), Sewell and Shah (1967) examined the relative influence of socioeconomic status and intelligence at successive stages in higher education. The results of the investigation indicated that socioeconomic status and intelligence, independent of each other and combined,are related to college plans, college attendence, and college graduation. Generally, the higher the socioeconomic status, the more likely a student is to have college plans, attend college, and graduate from college.

Using 3,245 Louisiana high school students, Picou and Carter (1976) conducted a study to assess the influence of significant-others on career aspirations. The results of the study indicated that rural youths' aspirations are influenced more by the modeling behavior of peers that of parents, whereas urban youth were influenced more by parents than by peers.

Using data obtained in 1968 and 1970 through self-administered questionnaires in 26 high schools within two Appalachian regional settings (one coal mining and the other farming), Lyson (1977) conducted a study to examine the interrelated influences of regional circumstances, local community context, and family socioeconomic background on the manner by which Appalachian youth select career goals. The results of his investigation indicated that regional circumstances (marginal economic opportunity and lack of positive role models) appear to "dampen the educational aspirations and expectations of all but the most talented, ambitious, and relatively well-off youth" (p. 19).

Irby (1978) studied 254 black health and non-health aspirants enrolled in colleges, universities, and health professional schools in Illinois. Two of the objectives of the study were to determine whether any differences existed in the socioeconomic backgrounds and self-concepts of those students who aspired for health related occupations and those students who had other aspirations. The results of the study indicated that there were no significant differences in the background characteristics of health and non-health aspirants. However, there were significant differences in the personal characteristics and traits of black health and black non-health aspirants; health aspirants had higher self-concepts.

Schwarzweller (1978) conducted a comparative study using data obtained in 1968, 1969, and 1970 via questionnaires from 2,313 graduating seniors in 21 high schools in rural Kentucky and West Virginia and from 1,396 students enrolled in terminal classes of five rural secondary schools in Norway. The purpose of the study was to explore the patterning of occupational choice among rural youth in Norway and the United States as related to sex, social class, and educational and occupational attainment plans. The results of the study indicated that: (1) the sex-role factor accounts for most of the variability in the patterning of career desiderata among youth in both societies (i.e. boys appear more concerned with security, money, and advancement opportunities than girls who are mainly inclined toward people-oriented careers); (2) social class origins contribute little to career preferences; and (3) generally, status achievement is associated with career plans.

The review of research generally supports the hypothesis that an in-

dividual's career choice is influenced by the socioeconomic status of the family. However, it should be pointed out that most of the studies reviewed herein involved white elementary and secondary school students from regions other than the rural South.

Expectations Regarding Cost of Education and Training and Career Choice

From their longitudinal study of 3,639 students enrolled in 10 historically black colleges, Gurin and Epps (1975) concluded that regardless of social background most students share the same ideas about the importance of a college education. Poorer students, however, do realize that their limited income may prevent them from attaining long range educational goals. For example, economically poor students may choose careers that do not require graduate or professional school. Income also influences the students' beliefs regarding their employment probability. Students from rural areas and poverty backgrounds may doubt their chances of earning a degree beyond the bachelor level. The black students' disadvantage is the result of their lack of financial resources; black students generally graduate from college in debt. They must repay loans incurred to finance their undergraduate education. Although many academically able minority students may desire to continue their education, they are hindered by financial limitations.

Crites (1969), in discussing non-psychological theories of vocational choice, pointed out that classical economists of the 18th century (led by Smith, Senior, and Mill) agreed that the "net advantage" is the determining factor in an individual's job selection. Economists feel that the individual, given freedom of choice, will choose the occupation that will grant the greatest merits by assessing the occupation's advantages and disadvantages. The "net advantage" generally means the best income or wages.

Usually, those jobs that pay the most money are the ones with scanty sources of labor, and those that pay the least have a surplus of labor. This is the classical economic principle that the occupational distribution of labor is based upon supply and demand.

Rosenberg, (1957) found that wealthier students are more likely to consider "status and prestige" as an occupational value. They not only have greater opportunities, but place an enormous amount of importance upon achieving a high level of income. Further, family background does aid in determining expectations about one's ultimate economic position. The most lucartive fields require capital, credit, and/or business connections. They may involve expensive graduate

study such as medical school or law school. Consequently, economically poor students tend to choose salaried professions such as teaching, social work, engineering, and other science related fields that require less training.

The findings of Gurin and Epps (1975) indicate that social background of students affects their expectancies more than it affects their motives and values. Most students have basically the same values, achievement motives, and commitment to education. Generally, family structure has little influence on student achievement. However, research findings tend to suggest that girls who come from mother-only or extended families often have higher career aspirations than those who come from two-parent families. Women from mother-only families also tend to desire high-ability employment in unconventional fields more than women from two-parent families.

Motivation as a Factor in Career Choice

In the view of Gurin and Epps (1975), performance and aspiration are the results of the motivation to achieve. Their motivational framework encompasses three explanatory variables: (1) an individual's need for achievement and anxieties about failure or achievement motive; (2) the value an individual places on hard work and success or achievement value; (3) an individual's estimate of the probability that efforts will lead to a goal or expectancies of success. The writers repeatedly found that the student's sense of personal control has proved to be motivationally significant. Internal and external control were discussed as they relate to an individual's perceptions regarding whether he/she can control the events of his/her own life while external control refers to one's perceptions regarding the extent to which he/she is controlled by outside forces such as luck, the right breaks, or knowing the right people. The experiences of different racial groups in America appear to have influence on how an individual perceives opportunities and possibilities for success. Individuals with the greatest sense of internal or personal control, unlike those who express a low level of personal or internal control, more often express intentions of attending graduate or professional school and tend to aspire to careers that demand high ability, are accorded high prestige, and fall into nontraditional sectors of the labor market.

Fleege and Malone (1946), using a population of 533 boys and girls from two junior-senior public high schools in the state of New York, conducted an investigation of the motives for vocational choice. The results of their study indicated that more than 75% of the reasons ad-

vanced for choosing a particular vocation were selfish, natural motives such as "interest in work" and "opportunity for personal advancement."

According to Symonds (1951) the intensity of motivation is directly related to self-value. When individuals undertake tasks in which they are personally interested and involved they are more likely to devote the time and energy necessary for successful completion of the tasks.

In a study of the motivational aspects of adolescents' behaviors, Tseng and Carter (1970), using 228 male high school students between the ages of 14 and 18, found that highly confident, high achievers seem more aware of an occupation's prestige and aspire to "higher," more prestigious occupations than do fearful low achievers. They postulate that vocational aspiration and the perceived prestige of an occupation play an important role in occupational choice.

Secondary Educational Environment and Career Choice

Few studies examine the general influence of the secondary school on the career choices of rural minority students, per se. However, a number of writers and researchers have examined the relationship between social class and curriculum placement, the effects of desegregation on career aspirations and expectations of black students, and the effects of school status on college aspirations in general. Some of the research and writing related to these variables are discussed below.

Hollingshead (1949), using a sample of 735 youth from a Midwestern community, conducted a study of the impact of social class on adolescents. Part III of this classic work, Elmtown's Youth, discusses Hollingshead's findings relative to the relationship between social class and the varied experiences of the 390 students who attended the local high school. The results of the study indicated that, generally, the higher the social class the more likely the student is to: (1) remain in high school; (2) make good grades; (3) follow a college preparatory curriculum; (4) have professional or business vocational aims; and (5) participate in and/or attend extracurricular activities.

The writings of Ginzbert et al. (1951) support the findings of Hollingshead; they indicate that socioeconomic background as well as the school environment influences occupational choice. An individual's informal education is largely dependent upon the socioeconomic status of the family. Children of low-income families seldom have opportunities for exposure to such informal educational experiences as those provided by books, travel, museums, art galleries and the like. Consequently, children of low-income families often enter school lacking the experiential background necessary for performing at par with their middle-class

peers. These children are generally placed in the lower ability groups. Upon entry to high school, they are often channeled into curriculums that are designed to prepare them for technical or vocational employment. Further, in the view of Crites (1958, cited in Crites, 1969), the school probably ranks second only to the family as a socializing agent. The individual's value system and vocational choice are affected by the school's curriculum. The secondary school often encourages students to renounce career choices that are viewed as being incongruent with their intellectual and/or financial ability.

Havighurst and Neugarten (1962) discussed the school as a "sorting and selecting agency." They emphasized that sorting of students is conducted according to their ability and socioeconomic background. The educational system tends to favor students with high socioeconomic background and high ability. Students of high social status and low ability generally are more likely to remain in high school than are students of high ability and low social status.

Sewell and Orenstein (1965), in a discussion of the influence of role models, emphasized that an individual in immediate contact with persons holding high status positions or receiving a continuous flow of information concerning their daily activities, will perceive these persons as occupational role models. Often individuals will view the occupations of their role models as reasonable personal goals. Significant others--parents, teachers, and peers--can strengthen such views through encouragement. Low-income youth and youth who live in small communities have fewer opportunities to come in contact with persons holding high status positions.

The low socioeconomic background student also has limited resources when it comes to career guidance. According to Ginzberg (1965), parents and other adults in the immediate environments of the low-income youth are often so limited in experiences and schooling that they are in a poor position to offer constructive and meaningful career guidance. Teachers and administrators often treat low-income youth as if they were intellectually a homogeneous group, discounting potential for higher education and professional occupations. As a result, low = income youth often follow the advice of peers (who are often also low = income youth enrolled in non-academic curriculum programs) or base their career decisions on factors other than intellectual ability and interest.

Along the same line Alexander and McDill (1976), using high school seniors, conducted a study of the causes and consequences of curriculum placement. The results of their investigation indicated that high ability and high socioeconomic status, more than any other background

variables, increase the likelihood of placement in a college preparatory program. Those students enrolled in a college preparatory curriculum were more likely to acquire friends with plans for attending college, high ability, and advantaged backgrounds.

Generally, the literature and research show that the status of the high school has little effect on student career aspirations. For instance, Nelson (1972), using data derived by administering aptitude tests and questionnaires to 17,976 students in Minnesota's largest urban center, examined the effects of high school status on student college aspirations. The findings indicate that the school status (i.e. high or low) does not make much difference in student aspirations. Rather, the student's rank (position) in the school and high intelligence seem to be more important than school status in influencing aspirations. In short, if intelligence and rank are controlled, the effect of school status on aspirations is blurred.

Another variable given considerable research attention has to do with the effects of desegregation on career aspirations. The results of the studies of Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, and York (1966); Jencks, Smith, Acland, Bane, Cohen, Gintis, Heynes, and Michelson (1972); and Kuvlesky and Boykin (1977) indicate that there were no significant differences in the aspirations and expectations of black students whether they attended segregated or desegregated high schools.

Falk and Cosby (1975), using data collected from a group of Texas rural, economically poor high school sophomores (1966) and seniors (1968), conducted a comparative study of the effects of segregation and desegregation on mobility attitudes of black and white students. The results of the study indicate that the desegregation experience had no significant effects on the formation of mobility-linked attitudes. However, it was found that students who attended desegregated high schools saw their race as a "blockage factor."

Political Participation of Parents and Student Career Choice

No studies were found that explored the relationship between career choices of students and the political participation of their parents. The literature generally supports the relationship between social class and political participation, i.e., individuals with high social class, economic status, and education tend to be more active politically. These persons are generally also more likely to be employed in white-collar and higher status occupations.

Self-Concept/Self-Esteem in Occupational Choice

A substantial amount of research findings supports the hypothesis that self-concept is closely related to occupational choice, as well as to aspirational level and academic achievement. In expressing an occupational choice Super (1951) postulated that "a person puts into occupational terminology his idea of the kind of person he is; that in entering an occupation, he seeks to fulfill a concept of himself; that in getting established in an occupation he achieves self-actualization" (p. 88). According to Super (1963), there is congruence between self-concept and occupational choice.

Korman (1966) found that people with high self-esteem are more likely to carry out their concepts of self through career choice than low self-esteem individuals. In another study Korman (1967) found that high self-esteem students are more likely to choose those occupations which require high abilities than low self-esteem students.

In a study conducted by Hunt (1967), it was concluded that greater congruence or similarity exists between an individual's perception of himself and his perception of specific vocations open to him; his perceptions are directly related to his choice of a given alternative (career). Hunt's findings support the assumptions underlying Super's theories of the relationship between self-concept and career choice.

Ziegler (1970), using 428 male college students representing 39 majors, conducted an investigation of the relationship between self-concept, occupational member concept, and occupational interest. The results of the study revealed that individuals perceived a greater degree of resemblance between themselves and their most-preferred occupational member concept than between themselves and their least-preferred occupational member concept. In addition, the results indicated that certain identifiable self-concept characteristics were found for individuals attracted to different occupational interest areas. These findings are also supportive of Super's postulated self-concept/vocational preference relationship.

Resnick, Fauble, and Osipow (1970) conducted a study to assess the relationship between vocational crystallization (formulation of tentative ideas regarding the level and field of future work) and self-esteem in college students. Differences were found in the certainty of high- and low-esteem students, but no differences were found in the relationship between self-esteem and vocational crystallization.

Putnam and Hansen (1972), using a stratified sample of 375 young women, studied the relationship of feminine role and self-concept to

vocational maturity. They concluded that the feminine role chosen by each girl is related to self-concept and vocational maturity; occupational choice is an implementation of the self-concept. Their findings not only support Super's theory of vocational development, but also indicate that it is applicable for girls.

Additional studies which give support to Super's hypothesis include the works of Brophy (1959), Englander (1960), Blocher and Schutz (1961), Morrison (1962), Oppenheimer (1966), and Wheeler and Carnes (1968).

Super (1953) viewed vocational development as a series of life stages identified as those of growth, exploration, establishment, maintenance, and decline. The exploratory stage may be further subdivided into fantasy, tentative, and realistic phases and the establishment stage, into trial and stable phases.

According to Rosenberg (1957) occupational choice is influenced by the degree of harmony between the behavioral requirements of the occupation and personality structure of the individual. Holland (1958) strengthened and expanded the views of Rosenberg, asserting that:

> *The choice of an occupation is an expressive act which reflects the person's motivation, knowledge, personality, and ability. Occupations represent a way of life, an environment rather than a set of isolated work functions or skills. To work as a carpenter means not only to use tools but also to have a certain status, community role, and a special pattern of living. In this sense, the choice of an occupational title represents several kinds of information: the S's [Subject's] motivation, his knowledge of the occupation in question, his insight and understanding of himself and his abilities (p. 336).*

Since personality and self-concept are so closely entwined, it seems that any discussion of the influence of self-concept would be incomplete without some attention to the influence of personality. Super(1953) asserted that each individual differs according to his abilities and interests. He qualifies for certain occupations by means of his personality type and, because each occupation requires certain characteristics and abilities, there is considerable diversity in the number of occupations each individual is suited for.

Holland (1966), in *The Psychology of Vocational Choice*, provides an in-depth discussion of personality as it relates to vocational preference. He categorizes people into six basic personality types: realistic, intellectual, social, conventional, enterprising, and artistic.

In addition to the above, there are several scholars who subscribe to

what has come to be called the "relative-deprivation" theory to explain career choices of students. Prominent among these scholars is James Davis (1966). In his article "The Campus As A Frog Pond: An Application of the Theory of Relative Deprivation To Career Decisions of College Men," Davis argues that a student's career choice is based partially on his perception of his academic performance relative to the performance of his peers--other students in the same school. He believes that students who perceive themselves as good students in comparison to their local peers tend to acquire the necessary confidence to aspire to high prestige occupations. This position was later supported by Drew and Astin (1972) and to some extent by Bassis (1977), although the latter argued that the peer group may not be local but national, depending upon whether the student anticipates moving up the socioeconomic ladder.

DEMOGRAPHIC CHARACTERISTICS

The 2,117 subjects in the study population are described in terms of sex, residence, career choice, and classification. Although sex was not specified among the independent variables, some attention is given to the association between career choice and sex of respondents. The tables provide a delineation of subjects from both Phase I and Phase II of the investigation.

Sex and Classification

The percent distribution of the population surveyed during Phase I (1980-1981) and Phase II (1981-1982) is shown in Table 1. The table gives a breakdown of subjects by sex and classification.

Table 1. Percent Distribution of the Subjects by Sex and Classification, 1981 and 1982

Sex	1981						1982						Total	
	Freshmen		Seniors		Total		Freshmen		Seniors		Total			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Male	374	38	71	7	445	45	324	29	161	14	485	43	930	44
Female	433	43	117	12	550	55	454	40	183	17	637	57	1187	56
Total	807	81	188	19	995	100	778	69	344	31	1122	100	2117	100

Missing Observations, 1982: 5

Of the 995 students who completed the questionnaire during Phase I of the study, 807 (81%) were entering freshmen and the remaining 188 (19%) were college seniors. In Phase II of the study 1,127 students were surveyed; of these 778 (69%) were incoming freshmen and 344 (31%) were seniors. Of the 2,117 students surveyed, 44% (930) were males.

The population of participating freshmen constituted 91% of the total number of full-time entering 1980-81 freshmen and 91% of the 1981-82 total entering full-time freshmen. During Phase I, 38% of the senior class was surveyed; in Phase II, 61% of the senior class was surveyed. Seniors were randomly selected from each academic department.

Residence and Classification

In 1980-1981 there were 671 (67%) subjects from rural South Carolina, 209 (21%) from urban South Carolina, and 115 (12%) from other states. The majority of the respondents in Phase I, 53% of them, were rural freshmen. The second largest group, urban freshmen, numbered 169 (17%). The remaining groups in descending order were 144 rural seniors (14%), 111 out-of-state freshmen (11%), 40 urban seniors (4%), and 4 out-of-state seniors (1%). The percent distribution of respondents by residence and classification is presented in Table 2.

Table 2. Percent Distribution of Subjects by Residence and Classification, 1981 and 1982

Residence	1981						1982						Total	
	Freshmen		Seniors		Total		Freshmen		Seniors		Total			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Rural	527	53	144	14	671	67	549	49	256	23	805	72	1467	70
Urban	169	17	40	4	209	21	134	12	52	5	186	17	395	19
Out-of-State	111	11	4	1	115	12	95	8	36	3	131	11	246	11
Total	807	81	188	19	995	100	778	69	344	31	1122	100	2117	100

In Phase II, subjects from rural South Carolina accounted for almost three-fourths (72%) of the sample, followed by urban South Carolinians (17%). Rural freshman subjects comprised about half of the population (49%), followed by rural seniors (23%), urban freshmen (12%), out-of state freshmen (8%), urban seniors (5%), and out-of = state seniors (3%). Seventy percent of the total population (1,467) was from rural South Carolina, with 19% and 11% coming from urban South Carolina and other states, respectively.

Career Choice and Classification

The career offerings (majors) of South Carolina State College as of

July, 1980, were divided into two categories--traditional and nontraditional. Classified as traditional career areas were teacher education, home economics and related areas, sociology and social welfare, office administration, fine arts, history, and political science. The following were classified as nontraditional career areas: preprofessional programs, engineering, physics, chemistry, mathematics, accounting and other business-related areas, education of the handicapped, foreign languages, English, psychology, and criminal justice. Table 3 shows a percent distribution of subjects by career choice and classification.

Table 3. Percent Distribution of Subjects by Career Choice and Classification, 1981 and 1982

	1981						1982							
Career Choice	Freshmen N	%	Seniors N	%	Total N	%	Freshmen N	%	Seniors N	%	Total N	%	Total N	%
Traditional	427	43	115	11	542	54	295	26	168	15	463	41	1005	47
Non-Traditional	368	37	71	7	439	44	477	42	175	15	652	57	1091	52
No Response	12	1	2	1	14	2	6	1	1	1	7	2	21	1
Total	807	81	188	19	995	100	778	69	344	31	1122	100	2117	100

Fifty-four percent (542) of the subjects surveyed during Phase I were traditional majors, whereas only 41% (463) of those surveyed during the second phase of data collection were traditional majors. Of the 2,117 college students surveyed, 1,005 (47%) were traditional majors and 1,091 (52%) were nontraditional majors. It appears that the trend toward selecting nontraditional majors is continuing, at least for the population under study. Figures 1 through 4 (see Appendix B) provide comparisons of the frequency with which specific traditional and nontraditional majors were selected by respondents according to residence, sex, and freshman/senior classification.

Sex and Career Choice

When career choice is examined in relationship to sex, it is observed that in both Phase I and Phase II a significant relationship was found between the two variables. Table 4 compares the career choices of male

and female respondents for Phase I of the study. As indicated in the table 50% (217) of the male respondents and 60% (325) of the female

Table 4. Career Choice by Sex of Respondents, 1981

Career Choice	Total		Sex			
			Male		Female	
	N	%	N	%	N	%
Traditional	542	55	217	50	325	60
Nontraditional	433	45	219	50	219	40
Total	980	100	435	100	544	100

$X^2 = 9.7359$ with 1 df, $p = .0023$
Missing Observations: 15

respondents selected traditional careers. The chi-square test of difference in career choice by sex is significant at the .002 level.

In Phase II of the investigation 41% (459) of the respondents chose traditional careers, as shown in Table 5. Sixty-four percent (307) of the

Table 5. Career Choice by Sex of Respondents, 1982

Career Choice	Total		Sex			
			Male		Female	
	N	%	N	%	N	%
Traditional	459	41	172	36	287	45
Nontraditional	653	59	307	64	346	55
Total	1112	100	479	100	633	100

$X^2 = 10.006$ with 1 df, $p = .002$
Missing Observations: 5

males and 55% (346) of the females opted for nontraditional careers. The chi-square level of significance is .002.

It is observed that a greater proportion of women, as well as men, selected nontraditional careers in 1982 than in 1981, which indicates that the population under study is generally moving away from traditional majors. The fact that more college women than men selected traditional careers is probably reflective of the tendency for women to follow traditionally female career paths and for men to follow traditionally male career paths as is mirrored in the broader society.

Since 70% of the population is rural, the tendency for a greater proportion of females to select traditional careers may also be a function of residency. Small town families are typically larger and more traditional in their expectations of suitable careers for males and females. As indicated in Table 6, a greater percentage of rural females (53%) chose

Table 6. Career Choice by Residence and Sex, 1981 and 1982

Career Choice	Residence												Total	
	Rural				Urban				Out-of-State					
	Males		Females		Males		Females		Males		Females			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Traditional	253	43	460	53	70	39	104	50	65	44	48	51	1000	48
Nontraditional	334	57	413	47	109	61	106	50	82	56	46	49	1090	52
Total	587	100	873	100	179	100	210	100	147	100	94	100	2090	100

$X^2 = 20.3945$ with 5 df, $p = .0015$
Missing Observations: 27

traditional majors than did urban (50%) or out-of-state females (51%). The largest single percentage (61%) of persons who chose nontraditional majors was urban males followed by rural males (57%) and out = of-state males (56%). The chi-square test of difference shows a statistically significant relationship ($p = .0015$) between career choice and residence by sex. Rural females are more likely than either out-of-state or urban females to choose traditional majors; urban males are more likely than either rural or out-of-state males to choose nontraditional majors. (See Appendix C for rank order of traditional and nontraditional majors specified by respondents according to selected demographic characteristics. Appendix D provides a distribution of the study population by county of residence for in-state students for both phases of the study.)

VARIABLE 1: CAREER CHOICE, SOCIOECONOMIC LEVEL, AND RESIDENCE

Career Choice and Socioeconomic Level as Measured by Family Income

During Phase I family income was used as a measure of socioeconomic level; notice that there were 412 (41%) missing observations. Of the 58 high socioeconomic level respondents, 45% chose traditional majors, and of the 349 low socioeconomic level respondents, 56% (197) chose traditional majors. Of the 583 persons who responded to the family income item, 53% were traditional majors, as indicate in Table 7. Although no statistically significant rela-

Table 7. Career Choice by Socioeconomic Level, 1981

Career Choice	Socioeconomic Level						Total	
	High		Middle		Low			
	N	%	N	%	N	%	N	%
Traditional	26	45	88	50	197	56	311	53
Nontraditional	32	55	88	50	152	44	272	47
Total	58	100	176	100	349	100	583	100

$X^2 = 3.83$ with 2 df, $p > .05$ (not significant)
$Y = .15$
Missing Observations: 412

tionship was found between career choice and socioeconomic level as measured by family income ($p > .05$), the data indicate that the higher the socioeconomic level, the more likely one is to select a nontraditional major.

When the relationship between socioeconomic level and residence is examined, it is found that, as seen in Table 8, a larger percentage of ru-

Table 8. Socioeconomic Level by Residence, 1981

Socioeconomic Level	Residence						Total	
	Urban		Rural		Out-of-State			
	N	%	N	%	N	%	N	%
High	17	13	30	7	11	21	58	10
Middle	44	35	111	28	21	40	176	30
Low	67	52	262	65	20	39	349	60
Total	128	100	403	100	52	100	583	100

$X^2 = 20.973$ with 4 df, $p = .0006$
Missing Observations: 412

ral respondents (65%) than either urban (52%) or out-of-state (39%) respondents come from low socioeconomic backgrounds as indexed by family income. The chi-square test shows a statistically significant relationship ($p = .0006$) between socioeconomic level and residence.

Career Choice and Socioeconomic Level as Measured by the Gough Home Index

Because 41% of the subjects in Phase I did not respond to the family income item, socioeconomic levels were ascertained through the analysis of responses to the Gough Home Index in Phase II. Table 9 indicates that 41% (154) of high socieconomic level respondents, 41% (144) of middle socioeconomic level respondents, and 39% (123) of low socioeconomic level respondents selected traditional careers. Of the 1,049

Table 9. Career Choice by Socioeconomic Level, 1982

Career Choice	Socioeconomic Level						Total	
	High		Middle		Low			
	N	%	N	%	N	%	N	%
Traditional	154	41	144	41	123	39	421	40
Nontraditional	224	59	210	59	194	61	628	60
Total	378	100	354	100	317	100	1049	100

X^2 = .335 with 2 df, $p > .05$ (not significant)
Missing Observations: 78

respondents, 60% selected nontraditional careers. Comparison of the figures shows little variation in career choice regardless of socioeconomic level; no statistically significant difference was observed between subjects choosing traditional and nontraditional careers with regard to socioeconomic level.

As in 1981, the 1982 data regarding socioeconomic level and residence, as shown in Table 10, reveal that rural residents more often

Table 10. Socioeconomic Level by Residence, 1982

Socioeconomic Level	Residence						Total	
	Urban		Rural		Out-of-State			
	N	%	N	%	N	%	N	%
High	91	52	233	31	53	44	377	36
Middle	54	31	255	34	46	38	355	34
Low	29	17	265	35	22	18	316	30
Total	174	100	753	100	121	100	1048	100

X^2 = 43.8659 with 4 df, $p = .0000$
$\gamma = -.33$
Missing Observations: 79

come from families whose socioeconomic level is low (35%), while the largest percentage of urban South Carolinians (52%) and of out-of-state respondents (44%) come from families whose socioeconomic level is relatively high. The chi-square test reveals a statistically significant relationship ($p = .0000$) between socioeconomic level and residence.

Discussion

The research findings relative to the relationship between socioeconomic level and career choice show no significant relationship between the dependent and independent variables; there appears to be no appreciable association between career choice and socioeconomic level, at least as defined and measured in this investigation. These findings are congruent with those of Irby (1978) who studied black college health and non-health aspirants and implicit in the findings of Schwarzweller (1978) who conducted a comparative study of rural youth in two cultures. However, as previously mentioned, the preponderance of empirical research which examines the relationship between career aspirations and social class documents a significant relationship between career aspirations and socioeconomic status, as well as between career plans and socioeconomic status.

It cannot be overlooked that the population under study is atypical in two respects: it is minority and principally rural. Indices of socioeconomic status (such as father's occupation, family income, parental level of education, and assessment of material possessions as identified in the Gough Home Index) which are appropriate for whites may not be appropriate for all ethnic and regional populations, as suggested by Dyer (1972): "It is conceivable that, because of cultural differences, the variables involved may require a different set of weights for each group" (p. 389).

The question of whether traditional indices of socioeconomic level are appropriate for use with rural blacks remains to be answered. It is interesting to observe that the relationship between socioeconomic level and residence was found to be precisely what one would expect. That is, a statistically significant relationship was found between socioeconomic level and residence during both phases of the study. Rural residents, despite career choice, more often indicated that they come from families whose socioeconomic level is low. It is apparent that additional research is necessary to further explore the relationship between career choice and socioeconomic levels of black college students.

VARIABLE 2: CAREER CHOICE AND COST OF POST-BACCALAUREATE EDUCATION

Career Choice and Consideration of Cost

The majority of students who enroll at South Carolina State College come from rural, low socioeconomic backgrounds. Recent institutional statistics indicate that 71% of these students come from families whose income is less than $10,000 annually; 15% from families whose income is between $10,000 and $15,000 annually; 13% from families whose income is between $15,000 and $30,000; and less than 1% from families whose income exceeds $30,000. Empirical research suggests that students who come from such families realize that because of their limited resources they may not be able to follow career paths which require education and training beyond the bachelor's degree.

Table 11 provides a breakdown of the 1981 freshman (traditional and nontraditional) responses relative to the degree of consideration given to the cost of post-baccalaureate education and training.

Table 11. Career Choice by Degree of Consideration Given to the Cost of Education and Training, Freshmen: 1981

Item: Was the cost of financing your education beyond the bachelor's degree a factor in your choice of a career?

Career Choice	Total		Degree of Consideration							
			Very Much		Somewhat		Very Little		Not at All	
	N	%	N	%	N	%	N	%	N	%
Traditional	408	54	80	20	115	28	79	19	134	33
Nontraditional	351	46	54	15	114	33	45	13	138	39
	759	100	134	18	229	30	124	16	272	36

$X^2 = 10.2075$ with 3 df, $p = .017$
Missing Observations: 48

Of the 759 respondents, 54% were traditional majors. A greater proportion of freshmen who chose traditional careers (20%) indicated that

consideration of cost was "very much" a factor in their career choice, whereas nontraditional majors most often indicated that cost was "not at all" (39%) or "somewhat" (33%) a factor in their choice of a career. A statistically significant relationship was found ($p = .017$) between career choice and degree of consideration given to cost of post-baccalaureate education and training, at least for the freshman segment of the 1981 study population.

Similar data for senior respondents, 1981 (Table 12), show that there was no statistically significant association between career choice and the

Table 12. Career Choice by Degree of Consideration Given to the Cost of Education and Training, Seniors: 1981

Item: Was the cost of financing your education beyond the bachelor's degree a factor in your choice of a career?

Career Choice	Total		Degree of Consideration							
			Very Much		Somewhat		Very Little		Not at All	
	N	%	N	%	N	%	N	%	N	%
Traditional	112	62	21	19	31	27	12	11	48	43
Nontraditional	69	38	14	20	14	20	9	13	32	47
	181	100	35	19	45	25	21	12	80	44

$X^2 = 1.309$ with 3 df, $p > .05$ (not significant)
Missing Observations: 7

degree of consideration given to the cost of education and training beyond the bachelor's degree.

Moreover, when the relationship between choice of major and the degree of consideration given to the cost of education and training is examined (Table 13) for the total 1981 population, it is observed that

Table 13. Career Choice by Degree of Consideration Given to the Cost of Education and Training, 1981

Item: Was the cost of financing your education beyond the bachelor's degree a factor in your choice of a career?

Career Choice	Total		Degree of Consideration							
			Very Much		Somewhat		Very Little		Not at All	
	N	%	N	%	N	%	N	%	N	%
Traditional	520	55	101	19	146	28	91	18	182	35
Nontraditional	420	45	68	16	128	30	54	13	170	41
	940	100	169	18	274	29	145	16	352	37

$X^2 = 6.917$ with 3 df, $p > .05$ (not significant)
Missing Observations: 55

there is no statistically significant association between choice of major and degree of consideration given to the cost of education and training beyond the bachelor's degree.

When response patterns for data collected during Phase II are examined relative to the degree of consideration given to the cost of education and training by freshman respondents, it is observed that 38% of the traditional majors and 34% of the nontraditional majors indicated that the cost of post-baccalaureate education was "very much" a consideration in the selection of a career. The 1982 data for freshman respondents (Table 14) show no significant relationship between career choice and the degree of consideration given to the cost of education and training beyond the bachelor's degree.

Table 14. Career Choice by Degree of Consideration Given to the Cost of Education and Training, Freshmen: 1982

Item: Was the cost of financing your education beyond the bachelor's degree a factor in your choice of a career?

Career Choice	Total		Degree of Consideration							
			Very Much		Somewhat		Very Little		Not at All	
	N	%	N	%	N	%	N	%	N	%
Traditional	285	38	108	38	93	32	42	15	42	15
Nontraditional	474	62	159	34	162	34	67	14	86	18
	759	100	267	35	255	34	109	14	128	17

$X^2 = 2.35381$ with 3 df, $p > .05$ (not significant)
Missing Observations: 19

Similarly, for seniors in 1982 there was no statistically significant relationship between career choice and the degree of consideration given to financing post-baccalaureate education. As shown in Table 15, 18% of the traditional majors indicated that cost of education and training was "very much" a consideration in their choice of a career, whereas only 10% of nontraditional majors indicated the same.

The 1982 data for the total population, like data collected during the

Table 15. Career Choice by Degree of Consideration Given to the Cost of Education and Training, Seniors: 1982

Item: Was the cost of financing your education beyond the bachelor's degree a factor in your choice of a career?

Career Choice	Total		Degree of Consideration							
			Very Much		Somewhat		Very Little		Not at All	
	N	%	N	%	N	%	N	%	N	%
Traditional	166	49	30	18	43	26	23	14	70	42
Nontraditional	174	51	17	10	42	24	35	20	80	46
	340	100	47	14	85	25	58	17	150	44

$X^2 = 6.572$ with 3 df, $p > .05$ (not significant)
$\gamma = .14$
Missing Observations: 4

previous year, show there to be no statistically significant relationship between career choice and the degree of consideration given to cost of post-baccalaureate education. As recorded in Table 16, 23% of tradi-

Table 16. Career Choice by Degree of Consideration Given to the Cost of Education and Training, 1982

Item: Was the cost of financing your education beyond the bachelor's degree a factor in your choice of a career?

Career Choice	Total		Degree of Consideration							
			Very Much		Somewhat		Very Little		Not at All	
	N	%	N	%	N	%	N	%	N	%
Traditional	452	41	106	23	130	29	57	13	159	35
Nontraditional	648	59	119	18	197	31	98	15	234	36
	1100	100	225	20	327	30	154	14	393	36

$X^2 = 4.867$ with 3 df, $p > .05$ (not significant)
Missing Observations: 27

tional majors and 18% of nontraditional majors indicated that cost of education was "very much" a consideration in their selection of a career while the traditional versus the nontraditional responses for "somewhat," "very little," and "not at all" varied no more than three percentage points.

Discussion

Although these findings are not consistently statistically significant for freshmen or seniors, in general a greater percentage of traditional majors, when compared to nontraditional majors, indicated that cost of education and training was "very much" a factor in their choice of a career.

The findings for the 1981 freshman population are consistent with what is generally expected, i.e., there was a statistically significant association between career choice and the degree of consideration given to the cost of post-baccalaureate education. Students who chose traditional careers more often indicated that cost of education was "very much" a consideration in their choice of a career. Consistent with Rosenberg's findings (1957), it is plausible that these students chose areas where neither graduate nor professional training is required for entry level employment.

For 1981 senior respondents, the findings reveal no statistically significant relationship between career choice and degree of consideration given to cost of post-baccalaureate education. These findings are somewhat difficult to interpret when Phase I seniors and freshmen are compared. It is reasoned that the rate of attrition (57%) accounts for the increased homogeneity of the senior group and, consequently, of the response pattern. It may be that those students who had the least financial resources and, therefore, the greatest concern about cost comprised a considerable proportion of the dropouts.

Phase II data for freshmen show no statistically significant relationship between career choice and the degree of consideration given to the cost of education and training beyond the bachelor's degree. Student responses may have been influenced by the worsening of economic conditions in the United States. The elimination of social security benefits for college students, more stringent eligibility requirements for Pell grants, and decreased appropriations for educational grants, coupled with higher tuition and record post-Depression unemployment rates have caused students throughout the country, and particularly economically poor students, increased concern about the financing of higher education. Notice that only 20% of the traditional freshmen in 1981 in-

dicated that cost was "very much" a factor, while in 1982, 38% of traditional freshmen gave the same response. The percentage of nontraditional freshmen who indicated that cost was "very much" a concern grew from 15% in 1981 to 34% in 1982.

There was no statistically significant difference in the degree of consideration given to the cost of education and training beyond the bachelor's degree by traditional and nontraditional senior respondents in 1982. The percent distribution of 1982 senior responses, relative to the degree of concern about cost, does not reflect the increased concern as seen in 1982 freshmen. In addition to the possible influence of attrition, students who were seniors in 1982 had already selected a major prior to the recent changes in the economic climate. Their choices were generally based on conditions during a more "normal" period in terms of economic conditions in the United States.

In summary, these data suggest that South Carolina State College students who choose traditional majors are more concerned about the cost of post-baccalaureate education than are students who choose nontraditional majors.

Residence and Consideration of Cost

When the degree of consideration given to the cost of post-baccalaureate education is examined by respondents' places of residence it is consistently found (Phases I and II) that there is a statistically significant relationship between where one lives and how much he/she is concerned about cost of education beyond the bachelor's degree prior to the selection of a career. A larger proportion of rural respondents consistently indicated that they gave more consideration to the cost of financing education beyond the bachelor's degree than did any other single group.

Table 17 compares 1981 urban, rural, and out -of-state respondents with regard to the extent financial considerations influenced their career choices. A statistically significant association was found ($p = .013$) between the degree of consideration given by respondents according to place of residence. Only 10% of urban respondents and 12% of out =

Table 17. Consideration Given to Cost of Education by Residence, 1981

Item: Was the cost of financing your education beyond the bachelor's degree a factor in your choice of a career?

Responses	Residence						Total	
	Urban		Rural		Out-of-State			
	N	%	N	%	N	%	N	%
Very Much	20	10	136	21	13	12	169	18
Somewhat	61	31	182	29	31	29	274	29
Very Little	33	17	93	15	19	18	145	15
Not At All	84	42	225	35	43	41	352	38
Total	198	100	636	100	106	100	940	100

X^2. = 16.315 with 6 df, p = .013
Missing Observations: 55

of-state respondents indicated that cost was "very much" a factor as compared to 21% of rural respondents. Notice that only 35% of rural respondents indicated that cost was "not at all" a consideration while over 40% of urban and out-of-state respondents indicated that cost of post-baccalaureate education was "not at all" a factor in the choice of a career.

In 1982, with the worsening economic conditions in the United States, all respondents, regardless of residency, indicated greater concern about financing education beyond the bachelor's degree. However, as presented in Table 18, students from South Carolina, whether urban or rural, were generally more concerned about cost of post-baccalaureate education than were out-of-state students. Nearly

Table 18. Consideration Given to Cost of Education by Residence, 1982

Item: Was the cost of financing your education beyond the bachelor's degree a factor in your choice of a career?

Degree of Consideration	Residence						Total	
	Urban		Rural		Out-of-State			
	N	%	N	%	N	%	N	%
Very Much	35	19	166	21	25	19	226	20
Somewhat	61	34	244	31	22	17	327	30
Very Little	25	14	109	14	21	16	155	14
Not At All	59	33	272	34	62	48	393	36
Total	180	100	791	100	130	100	1101	100

$X^2 = 15.352$ with 6 df, $p = .017$
$\gamma = .10$
Missing Observations: 26

half (48%) of out-of-state respondents, but only 33% of urban, and 34% of rural respondents indicated that cost of post-baccalaureate education was "not at all" a factor in their career choices.

Discussion

Despite the large sample size, the percent distribution of responses clearly reflects that differences do exist in the amount of consideration given to the cost of post-baccalaureate education by various segments of the study population.

A greater proportion of rural students consistently indicated that cost of education was very much a factor in their career choices. These findings concur with what is implied by Lyson (1977) who concluded that regional circumstances in rural areas (marginal economic opportunity) may "dampen the educational aspirations and expectations" of rural youth (p. 19). Additionally, Gurin and Epps (1975) explicitly stated that although many academically able minority students may desire to continue their education, they are hindered by financial limitations.

VARIABLE 3: CAREER CHOICE AND LEVEL OF PARENTAL POLITICAL PARTICIPATION

Few studies explore the relationship between student career choice and level of parental political involvement. However, the literature generally supports the theses that there are significant relationships between socioeconomic level and the level of political participation and between where one lives and level of political participation.

During Phase I of the investigation two of the 15 items in the instrument designed to measure parental political participation (with a fairly high response rate) were selected as individual measures of parents' level of political involvement: (1) Do your parents vote in state elections? and (2) Do your parents vote in national elections?

In response to the item, "Do your parents vote in state elections?" 87% (452) of the traditional majors (Table 19) and 90% (382) of the

Table 19. Career Choice by Parents' Level of Voting Participation, 1981

Item: Do your parents vote in state elections?

Career Choice	Total		Voting Participation			
			Yes		No	
	N	%	N	%	N	%
Traditional	522	55	452	87	70	13
Nontraditional	425	45	382	90	43	10
	947	100	834	88	113	12

$X^2 = 2.4509$ with 1 df, $p > .05$ (not significant)
$\gamma = -.16$
Missing Observations: 48

nontraditional majors indicated that their parents vote in state elections. There was no statistically significant difference in the level of voting participation of the parents of traditional and nontraditional majors ($p. > .05$). Although not statistically significant, a larger percentage of nontraditional majors indicated that their parents vote in state elections.

When parental level of voting participation in national elections (Table 20) is examined in relationship to career choice it is found that 82% of both traditional and nontraditional majors indicated that their parents vote in national elections.

Table 20. Career Choice by Parents' Level of Voting Participation, 1981

Item: Do your parents vote in national elections?

Career Choice	Total		Voting Participation			
			Yes		No	
	N	%	N	%	N	%
Traditional	515	61	423	82	92	18
Nontraditional	327	39	267	82	60	18
	842	100	690	82	152	18

$X^2 = .0355$ with 1 df, $p > .05$ (not significant)
Missing Observations: 153

Phase I data indicate there to be no statistically significant association between students' career choices and parents' level of political participation as measured by voting habits.

During Phase II the 15 items used to assess parents' level of political participation were statistically reduced through factor analysis. After rotation with Kaiser normalization, it was found that two factors accounted for 81% of the variance. It was determined that Factor 1 consisted of three items: (1) Do your parents vote in state elections? (2) Do your parents vote in local elections? and (3) Do your parents vote in national elections? Factor 2 consisted of four items: (1) Do your parents hold elective public office? (2) Do your parents hold membership in the voters' league? (3) Do your parents participate in grass roots political meetings? and (4) Do your parents contribute to the financial support of any political party? Since the responses were polarized for the two sets of factors they would not lend well to scaling. An average of 88% of the respondents answered "yes" to the Factor 1 items and an average of

83% answered "no" to the Factor 2 items. The strength of relationship among the 15 items was assessed; an alpha coefficient of .70 was obtained. Thus it was possible to summate scores on the 15 items and trichotomize in order to determine high, moderate, and low levels of parental political participation.

As shown in Table 21, the responses of the 392 traditional majors in-

Table 21. Career Choice by Parents' Level of Political Participation, 1982

Career Choice	Total		Level of Political Participation					
			High		Moderate		Low	
	N	%	N	%	N	%	N	%
Traditional	392	41	131	33	157	40	104	27
Nontraditional	561	59	174	31	222	40	165	29
	953	100	305	32	379	40	269	28

$X^2 = 1.108$ with 2 df, $p > .05$ (not significant)
Missing Observations: 174

dicated that 33%, 40%, and 27% of their parents had "high," "moderate," and "low" political participation, respectively, whereas the responses of the 561 nontraditional majors indicated that 31%, 40%, and 29% of their parents had "high," "moderate," and "low" political participation, respectively. These data indicate that there is no statistically significant relationship between students' career choices and their parents' levels of political participation.

Nevertheless, as suggested by the literature, our findings indicate that there is a statistically significant relationship between residence and level of parents' political involvement. As shown in Table 22, 38% of urban residents had parents with a "high" level of political participation while only 32% of rural residents and 22% of out-of-state residents had parents with "high" levels of political involvement. Generally, urban respondents' parents appear to be more politically active than the parents of either rural South Carolinians or out-of-state respondents.

Table 22. Parents' Level of Political Participation by Residence, 1982

Level of Political Participation	Residence						Total	
	Urban		Rural		Out-of-State			
	N	%	N	%	N	%	N	%
High	57	38	223	32	26	22	306	32
Moderate	49	33	283	41	50	43	382	40
Low	43	29	187	27	40	35	270	28
Total	149	100	693	100	116	100	958	100

X^2 = 9.468 with 4 df, p = .05
γ = .12
Missing Observations: 169

The data also reveal (Table 23) a statistically significant relationship between level of political participation and socioeconomic level. The majority of respondents from high socioeconomic levels (56%) had

Table 23. Parents' Level of Political Participation by Socioeconomic Level, 1982

Level of Political Participation	Socioeconomic Level						Total	
	High		Middle		Low			
	N	%	N	%	N	%	N	%
High	173	56	86	27	40	14	299	33
Moderate	94	30	153	48	111	39	358	39
Low	44	14	78	25	136	47	258	28
Total	311	100	317	100	287	100	915	100

X^2 = 157.737 with 4 df, p = .0
γ = .51
Missing Observations: 212

parents whose level of political participation was high; the preponderance of the parents of middle socioeconomic level respondents (48%) were moderately active politically; and the largest single percentage of low socioeconomic level respondents' parents (47%) were the least active politically.

Discussion

Although the sample size is considered to be large, measures were taken (i.e., responses for both the Gough Home Index and the political participation items were summated and divided into natural thirds) so as to provide for a more stringent test of significance. Notice also that the gamma ($\gamma = .51$) indicates a fairly strong relationship between level of parental political participation and socioeconomic level.

VARIABLE 4: CAREER CHOICE AND SECONDARY EDUCATIONAL ENVIRONMENT

Educational institutions make a substantial contribution to the maintenance of the social system since they influence values, beliefs, and attitudes of individuals and groups. Because schools serve as sorting and selecting agencies they can and do influence the vocational aspirations and career choices of youngsters. However, the extent to which individuals are affected by the school's environment may differ with socioeconomic background and cultural variation. This segment of the research explores the relationship between career choices of black college students and selected aspects of the secondary educational environment.

Career Choice and School Size

Two different measures were utilized to assess the relationship between career choice and size of high school: (1) graduating class size was utilized during Phase I; (2) high school classification (1-A, 2-A, 3-A, 4-A) was used during Phase II of the research. Table 24 shows career choice by size of high school, 1981. A considerable percentage (50%) of both traditional and nontraditional majors attended high

Table 24. Career Choice by Size of High School Graduating Class, 1981

Career Choice	Total		Size of High School Class					
			Less than 100		100 - 299		300+	
	N	%	N	%	N	%	N	%
Traditional	541	55	94	17	268	50	179	33
Nontraditional	437	45	71	16	220	50	146	34
Total	978	100	165	17	488	50	325	33

X^2 = .22134 with 2 df, $p > .05$ (not significant)
Missing Observations: 17

schools whose graduating class size ranged from 100 to 299 students. There is only one percentage point difference in the number of traditional and nontraditional majors whose graduating class size was less than 100 or more than 300. The chi-square test of difference shows no statistically significant association between career choice and size of high school graduating class.

When the relationship between career choice and high school size is examined, using high school classification as an index of school size, it is found that a larger percentage of traditional majors attended 4-A and 3-A high schools. As seen in Table 25, 37% of traditional majors attended 4-A high schools as compared to 34% of nontraditional majors; concomitantly, only 8% of traditional majors attended 1-A high schools

Table 25. Career Choice by Size of High School, 1982

Career Choice	Total		High School Classification							
			4-A		3-A		2-A		1-A	
	N	%	N	%	N	%	N	%	N	%
Traditional	435	41	160	37	132	30	107	25	36	8
Nontraditional	626	59	213	34	180	29	164	26	69	11
Total	1061	100	373	35	312	29	271	26	105	10

$X^2 = 2.989$ with 3 df, $p > .05$ (not significant)
Missing Observations: 66

while 11% of nontraditional majors attended the smaller high schools. Although it appears that the traditional majors more often attend larger high schools, no statistically significant relationship is found between career choice and size of high school.

Career Choice and Number of High School Counselors

In order to measure the association between career choice and the number of counselors employed in the high school, students were asked: "How many counselors worked in your high school?" Seventeen

percent of nontraditional majors indicated that there were six or more counselors employed in their high schools while only 12% of traditional majors indicated the same. Table 26 shows that 48% of traditional majors attended high schools in which less than three counselors were employed. These data indicate that the relationship between career

Table 26. Career Choice by Number of High School Counselors, 1981

Item: How many Counselors worked in your high school?

Career Choice	Total		Category of Responses							
			6 or more		3-5		0-2		Don't Know	
	N	%	N	%	N	%	N	%	N	%
Traditional	541	55	65	12	200	37	262	48	14	3
Nontraditional	438	45	73	17	150	34	207	47	8	2
Total	979	100	138	14	350	36	469	48	22	2

$X^2 = 4.9106$ with 3 df, $p > .05$ (not significant)
Missing Observations: 16

choice and the number of counselors within the high school is not statistically significant.

During Phase II the identical question was asked, but the possible response categories were altered to obtain more specific data. The response pattern shows greater variation between traditional and nontraditional majors for schools employing more than three counselors. As shown in Table 27, 28% of nontraditional majors as compared to 25% of traditional majors attended secondary schools which had five or more

Table 27. Career Choice by Number of High School Counselors, 1982

Item: How many counselors worked in your high school?

Career Choice	Total		Category of Responses									
			5 or more		4		3		2		1	
	N	%	N	%	N	%	N	%	N	%	N	%
Traditional	459	41	114	25	73	16	62	14	126	27	84	18
Nontraditional	654	59	182	28	78	12	91	14	176	27	127	19
Total	1113	100	296	27	151	13	153	14	302	27	211	19

$X^2 = 4.292$ with 4 df, $p > .05$ (not significant)
Missing Observations: 14

counselors. Converseiy, 16% of traditional majors and only 12% of nontraditional majors graduated from high schools employing four counselors. The remaining paired responses of traditional and nontraditional majors varied by no more than one percentage point. Again, the relationship between career choice and number of counselors at the secondary level was not statistically significant.

Career Choice by Level of Desegregation of High School

The association between career choice and level of high school desegregation was measured during Phase I of the research. As shown in Table 28, only 9% of nontraditional majors and 8% of traditional majors indicated that they graduated from segregated high schools. Twenty-nine percent of traditional majors as compared to only 25% of nontraditional majors indicated that 50-74% of the students enrolled in their high schools were white. Slightly more traditional majors (13%) than nontraditional majors (12%) attended high schools where the students enrollment was at least 75% white. The chi-square test of difference reveals no statistically significant association between career choices of black college students and the level of desegregation of their high schools.

Table 28. Career Choice by Level of High School Desegregation, 1981

Career Choice	Total		Level of Desegregation									
			0		1-24%		25-49%		50-74%		75%+	
	N	%	N	%	N	%	N	%	N	%	N	%
Traditional	537	55	44	8	113	21	156	29	153	29	71	13
Nontraditional	436	45	39	9	99	23	134	31	111	25	53	12
Total	973	100	83	8	212	22	290	30	264	27	124	13

$X^2 = 1.72393$ with 4 df, $p > .05$ (not significant)
$Y = -.10$
Missing Observations: 22

These findings are similar to those of Coleman et al. (1966), Jencks et al. (1972), and Kuvlesky and Boykin (1977) whose research findings indicated that there was no statistically significant difference in the aspirations and expections of black students whether they attended segregated or desegregated high schools.

Career Choice and Communication with High School Counselor

In order to determine the relationship between career choice and degree of communication with the high school counselor, 1981 subjects were asked: "How often would you say that you sat and talked about...career possibilities with your high school counselor during your last two years of high school?" As shown in Table 29, 35% of traditional majors as compared to 30% of nontraditional majors responded "frequently," while a larger percentage of nontraditional majors indicated that they "sometimes" (33%) or "seldom" (26%) discussed career possibilities with the high school counselor. The chi-square test of dif-

Table 29. Career Choice by Degree of Communication with High School Counselor, 1981

Item: How often would you say that you sat and talked about college and career possibilities with your high school counselor during your last two years of high school?

Career Choice	Total		Response Categories							
			Frequently		Sometimes		Seldom		Never	
	N	%	N	%	N	%	N	%	N	%
Traditional	541	55	189	35	165	30	124	23	63	12
Nontraditional	438	45	133	30	146	33	114	26	45	11
Total	979	100	322	33	311	32	238	24	108	11

X^2 = 3.5225 with 3 df, $p > .05$ (not significant)
Y = .14
Missing Observations: 16

ference shows no statistically significant association between career choice and degree of communication with high school counselor.

During Phase II the item used to assess the relationship between career choice and degree of communication with the high school counselor was altered in order to obtain more specific information. The item was changed to read: "How helpful was your high school counselor in guiding your career choice?" The response categories were fixed and ranged from "very helpful" to "not at all helpful." As seen in Table 30, a greater percentage of traditional majors (28%) than of nontraditional majors (26%) indicated that the counselor was "very helpful" in guiding their career choices. However, nontraditional majors more often indicated that the counselor was "somewhat helpful" (31% as compared to only 27% of traditional majors) or "slightly helpful" (27% of nontraditional majors as compared to only 24% of traditional majors). The chi-square test of difference shows there to be no statistically significant relationship ($p > .05$) between career choice and students' perceptions of the helpfulness of the counselor.

Table 30. Career Choice by Degree of Communication with High School Counselor, 1982

Item: How helpful was your high school counselor in guiding your career choice?

Career Choice	Total		Response Categories							
			Very Helpful		Somewhat Helpful		Slightly Helpful		Not Helpful	
	N	%	N	%	N	%	N	%	N	%
Traditional	461	41	131	28	123	27	109	24	98	21
Nontraditional	655	59	170	26	205	31	174	27	106	16
Total	1116	100	301	27	328	29	283	25	204	18

$X^2 = 7.292$ with 3 df, $p > .05$ (not significant)
Missing Observations: 11

Career Choice and High School Curricular Track

The secondary school, as well as other educational institutions, is generally viewed as a sorting and selecting agency which encourages students to follow curricular tracks that are congruent with their perceived academic abilities. In order to assess the influence of curriculum placement on career choices, the study population was asked to specify the curricular track followed during the high school years.

During neither phase of the investigation was a statistically significant relationship found between career choice and high school curricular track followed by freshman respondents. However, the 1981 data for senior respondents, as seen in Table 31, indicate that 70% of traditional majors followed an academic curriculum while in high school, whereas 82% of the nontraditional majors followed an academic curriculum in high school. The chi-square test of difference shows a statistically significant relationship ($p < .05$) between career choice and curriculum followed during the high school years.

Table 31. Career Choice by Type of High School Curriculum, 1981 Seniors

Career Choice	Total		Type of Curriculum			
			Academic		Nonacademic	
	N	%	N	%	N	%
Traditional	115	62	80	70	35	30
Nontraditional	70	38	58	82	12	18
	185	100	138	75	47	25

$X^2 = 4.057$ with 1 df, $p < .05$
Missing Observations: 3

When the data related to career choice and curriculum track followed are examined for 1982 senior respondents (Table 32) it is observed that

Table 32. Career Choice by Type of High School Curriculum, 1982 Seniors

Career Choice	Total		Type of Curriculum			
			Academic		Nonacademic	
	N	%	N	%	N	%
Traditional	167	49	127	76	40	24
Nontraditional	173	51	121	70	52	30
	340	100	248	73	92	27

$X^2 = 1.31055$ with 1 df, $p > .05$ (not significant)
Missing Observations: 4

70% of nontraditional majors and 76% of traditional majors pursued a

college preparatory curriculum. The chi-square test of difference does not show a statistically significant relationship ($p > .05$) between career choice and curriculum followed for the 1982 senior population.

In general, these findings indicate that the majority of both traditional and nontraditional majors, without regard to classification, reported that they were enrolled in an academic curriculum during the high school years. Few differences could be observed between traditional and nontraditional majors as it relates to whether they had followed an academic or nonacademic curricular track during the high school years.

Career Choice and Level of Participation in Extracurricular Activities

The relationship between career choice and level of participation in high school extracurricular activities was assessed during Phase II of the research. As shown in Table 33 which follows, 37% of traditional majors as compared to only 34% of nontraditional majors indicated a high level of involvement in extracurricular activities, whereas 34% of both groups indicated a moderate level of participation in high school extracurricular activities. The chi-square statistic shows no significant association between career choice and level of participation in high school extracurricular activities.

Table 33. Career Choice by Level of Participation in Extracurricular Activities, 1982

Career Choice	Total		Level of Participation					
			High		Moderate		Low	
	N	%	N	%	N	%	N	%
Traditional	400	41	150	37	136	34	114	29
Nontraditional	584	59	196	34	201	34	187	32
Total	984	100	346	35	337	34	301	31

$X^2 = 2.02118$ with 2 df, $p > .05$ (not significant)
Missing Observations: 143

Career Choice by Accreditation Status of High School

The accreditation status of high schools attended by the 1982 respondents was obtained from the Directory of South Carolina Schools, 1979-80. The crosstabulation analysis, as presented in Table 34, shows that 74% of traditional majors as compared to 68% of nontraditional majors graduated from accredited high schools. The chi-square

Table 34. Career Choice by Accreditation Status of High School, 1982

Career Choice	Total		High School Status			
			Accredited		Nonaccredited	
	N	%	N	%	N	%
Traditional	381	41	282	74	99	26
Nontraditional	542	59	370	68	172	32
Total	923	100	652	71	271	29

$X^2 = 3.567$ with 1 df, $p > .05$
$\gamma = -.14$
Missing Observations: 204

test of difference shows no statistically significant association ($p > .05$) between career choice and the accreditation status of the high school attended. It is interesting to note that a greater percentage of traditional majors than nontraditional majors reported that they attended accredited high schools.

Career Choice and Racial/Ethnic Identity of Primary Influencer

During both phases of the research an attempt was made to ascertain the relationship between career choice and the racial/ethnic identity of the person within the school who guided college career choice. The data reveal, as shown in Table 35, that 84% of traditional majors and 85% of nontraditional majors indicated that their career choices were

Table 35. Career Choice by Influencers' Racial/Ethnic Identity, 1981

Item: What was the racial identity of the individual in your high school who was most influential in guiding your college career choice?

Career Choice	Total		BLACK		WHITE		HISPANIC		OTHER	
	N	%	N	%	N	%	N	%	N	%
Traditional	502	55	421	84	61	12	1	0	19	4
Nontraditional	410	45	350	85	47	11	2	1	11	3
Total	912	100	771	85	108	12	3	0	30	3

$X^2 = 1.55486$ with 3 df, $p > .05$ (not significant)
Missing Observations: 83

guided by black persons within the school. These findings suggest that despite college major, black persons within the school are more influential in guiding the career choices of black students.

Since Phase I data showed no significant difference in the career choices of students by race of the within school influencer, the Phase II questionnaire items were designed: (1) to examine the relationship between career choice and race of within school key influencer and (2) to ascertain whether individuals within the school were generally most influential in guiding career choice. The data, shown in Table 36, reveal identical response patterns for both groups. The preponderance (68%) of both traditional and nontraditional majors indicated that it was not someone from their ethnic group within the school who was most influential in guiding their career choices. The chi-square test of difference shows no statistically significant difference in career choice by influencers' racial identity.

Table 36. Career Choice by Influencer's Racial/Ethnic Identity, 1982

Item: Was your career choice influenced most by someone from your ethnic group in the school?

Career Choice	Total		Yes		No	
	N	%	N	%	N	%
Traditional	458	41	147	32	311	68
Nontraditional	645	59	204	32	441	68
Total	1103	100	351	32	752	68

X^2 = .00978 with 1 df, p > .05 (not significant)
Missing Observations: 24

When the interrelationship of responses to the items contained in contingency Tables 35 and 36 are examined, it is evident that the key "within school" influencers are other black persons within the school. However, it is also clear that the preponderance of students, both traditional and nontraditional, indicated that the persons who were most influential in guiding their career choices were generally not persons within the school. The data presented in Table 37 further substantiate the lack of influence of persons within the school. Sixty-two percent of tra-

Table 37. Career Choice by Location of Career Influencer, 1982

Item: Was your career choice influenced most by someone from within your school or someone from outside (such as family, friend, etc.)?

Career Choice	Total		From within the School		From outside of the School	
	N	%	N	%	N	%
Traditional	442	42	167	38	275	62
Nontraditional	629	59	220	35	409	65
Total	1071	100	387	36	684	64

X^2 = .7686 with 1 df, p > .05 (not significant)
Missing Observations: 56

ditional majors and 65% of nontraditional majors indicated that the individuals who were most influential in guiding their career choices were persons "outside of the school." The chi-square test of difference shows no statistically significant difference in career choice by within school or out-of-school location of key influencer.

Career Choice and Key Influencers

In order to assess the relationship between career choice and primary influencers in the school, the 1981 study population was asked: "Of the following, who in your high school was most influential in guiding your college career choice?" The response categories were counselor, teacher, friend, principal and none of the above. Table 38 reports the rank order and corresponding percentages according to career choice. Notice that the preponderance of both traditional and nontraditional majors specified "none of the above"; also both groups cited most fre-

Table 38. Career Choice by Rank Order of Key Influencers, 1981

Traditional Majors (N=539)			Nontraditional Majors (N=435)		
Rank Order	Influencers	Percent	Rank Order	Influencers	Percent
1	None of the Above	56	1	None of the Above	59
2	Teacher	22	2	Teacher	16
3	Counselor	13	3	Counselor	12
4	Friend	8	4	Friend	10
5	Principal	1	5	Principal	3
Total		100			100

$X^2 = 10.1057$ with 4 df, $p < .05$
Missing Observations: 21

quently, in descending order, teacher, counselor, friend, and principal as having been most influential in guiding their career choices. Although the rank order of primary influencers is the same for both groups, a statistically significant difference was found in the percentage of traditional as compared to nontraditional majors who specified each of the categories of influencers. These findings indicate that traditional majors are more often influenced by teachers and counselors than are non-

traditional majors.

Since the majority of both traditional and nontraditional majors indicated in 1981 that the key persons who guided their college career choices were not teachers, counselors, friends, or principals, the 1982 questionnaire item was altered in order to obtain more specific data. The Phase II item was: "Who was most influential in guiding your selection of a college major? Do not give name, give relationship or position of the individual such as teacher, counselor, coach, etc." Responses to this open-end question regarding primary influencer were collasped into eight categories: (1) counselor, (2) father, (3) mother, (4) no one, (5) other relatives, (6) parents, (7) siblings, and (8) teacher. Variant other answers which did not reflect the general response pattern were grouped as miscellaneous others and were not included in the rank order or the chi-square statistic.

Table 39 reports the rank order of responses and the corresponding percentages according to career choice. Perusal of the rank order reveals that traditional majors specified, in descending order, no one, teacher, counselor, mother, siblings and other relatives, parents, and father. Although a substantial percentage of nontraditional majors indicated that "no one" guided their career choices, the greatest single percentage of these respondents indicated that their choice of college major was influenced most by teachers. Notice also that larger percent-

Table 39. Career Choice by Rank Order of Key Influencers, 1982

Traditional Majors (N=463)			Nontraditional Majors (N=657)		
Rank Order	Influencers	Percent	Rank Order	Influencers	Percent
1	No one or myself	31.1	1	Teacher	28.3
2	Teacher	25.3	2	No one or myself	22.2
3	Counselor	9.9	3	Counselor	10.7
4	Mother	5.4	4.5	Siblings	6.2
5.5	Siblings	4.1	4.5	Mother	6.2
5.5	Other Relatives	4.1	6	Other Relatives	5.8
7	Parents	1.7	7	Parents	4.2
8	Father	1.3	8	Father	3.0
*Other		9.3	*Other		8.7
*No Response		6.7	*No Response		3.8
*Uncodables		1.1	*Uncodables		.9
Total		100			100

$X^2 = 21.729$ with 7 df, $p < .005$

$\gamma = -.29$

*Responses not included in Chi-Square Statistic

ages of nontraditional as compared to traditional majors indicated in each instance that their career choices were influenced by counselors, siblings and mothers, other relatives, parents, and fathers. The chi = square test of difference shows a statistically significant relationship ($p < .005$) between career choice and primary influencers. These results indicate that nontraditional majors are more often influenced by teachers, counselors, and family members than are students who choose traditional majors.

These findings are inconsistent with the 1981 findings in the respect that in 1982 a greater percentage of nontraditional majors than traditional majors cited the teacher as the primary career choice influencer. The reverse was true in Phase I of the study. This discrepancy may be due in part to the nature of the questionnaire item, i.e., in 1981 the questionnaire item restricted responses while the 1982 item permitted unrestricted responses.

Discussion

The findings indicate there to be no statistically significant relationship between student career choices and (1) size of high school, (2) number of counselors available in the high school, (3) level of desegregation in the high school, (4) level of student participation in extracurricular activities, (5) racial/ethnic identity of the primary in-school influencer, and (6) communication with the high school counselor as measured by either the frequency with which students sat and talked with the counselor or how helpful the students perceived their high school counselors to be. The question of whether there is a significant relationship between college career choice and high school curriculum followed remains unanswered since the findings for the two data sets are inconclusive.

It is interesting to note that a greater percentage of students who chose nontraditional college majors attended unaccredited high schools. Unaccredited high schools are generally located in the smallest, poorest communities. However, smaller schools are usually able to provide greater opportunities for students to interact on a more personal and informal level with teachers, counselors, and school administrators. Since there are fewer people with whom to compete, students are more likely to be placed in an academic curriculum and to have greater opportunities to develop a wider range of talents and skills through active participation in school life.

In small communities fewer people, particularly minorities, are engaged in nontraditional occupations; therefore, students who reside

in these communities receive less exposure to community persons who might serve as nontraditional career models. Perhaps the valued occupational role models of these students include regional or national personalities such as those covered by the news media, as well as fictional characters portrayed in television, the movies, and books.

Taking into consideration both the nature of the school and the limitations of the community, it is conceivable that these students make nontraditional career choices because they feel a sense of obligation to their communities and intend to improve the quality of life in these communities by preparing themselves to provide services in nontraditional career areas.

In 1981 a greater proportion of traditional than nontraditional majors specified that they were most influenced by teachers and counselors. However, during Phase II (1982), a greater percentage of nontraditional majors indicated that they were primarily influenced by teachers and counselors. Although it is difficult to pinpoint the reason(s) for the inconclusive findings, it is clear that (1) the teacher was cited as the primary in-school influencer of students' career choices, (2) traditional majors more often reported that no one in particular guided their career choices, and (3) an average of 65% of both traditional and nontraditional majors indicated that their key career choice influencers were persons outside of the school setting.

In addition, the overwhelming majority (85%) of the respondents repeatedly specified that the individuals within the school who were most influential in guiding their career choices were other black persons. Given this finding, it seems imperative that teacher training institutions within the state make every effort to recruit and train minorities, especially blacks, to become well qualified public school educators since blacks make up a substantial segment of the school population and are more likey to identify with and seek assistance from other blacks.

The findings of this study suggest that the family exerts considerably less influence on the career choices of Southern black college students from working-class families than do teachers and counselors. The results support those of Weishaar et al. (1981) in regard to the surprisingly large proportion of both traditional and nontraditional majors, regardless of sex or place of residence, who indicated that no one in particular influenced their career choices. Scritchfield and Picou (1982), who studied 10th grade boys from a large Midwestern city, found that, for both blacks and whites, parents made up about 25% of all persons identified as key influencers of career aspirations, but in the present study it is observed that only 8.4% of traditional majors and 13.4% of nontraditional majors named parents (including the categories parents,

mother, and father) as key influencers. These findings lend support to those of Scritchfield and Picou with regard to teachers as a primary source of educational models for blacks. Teachers ranked first as primary influencers among nontraditional majors, females, and rural dwellers and ranked second only to no one in particular among traditional majors, males, and urban and out-of-state residents.

VARIABLE 5: CAREER CHOICE, MOTIVATION, AND ASPIRATIONS

Level of motivation was measured from students' responses relative to the degree of importance of each of the following: (1) getting ahead in life, (2) opportunity to help others who are disadvantaged, (3) getting a job in a city, (4) working in a prestigious job, (5) steady work and security, (6) making personal decisions and being own boss, (7) being able to live better than parents, (8) opportunity for advancement, (9) patience and hard work, and (10) making a lot of money. The analysis of data involved the use of contingency tables; the joint frequency distributions were analyzed using the chi-square test of association to determine whether the variables--career choice run against each of the items used to measure motivation--were statistically significant.

Career Choice and Motivation

Analysis of data, shown in Table 40, reveals that the preponderance of both traditional and nontraditional majors indicated that getting ahead in life, advancement, steady work and security, patience and hard work, helping others, making a lot of money, being own boss, and living better than parents were very important to them. Less than 50% of each group viewed working in a prestigious job as very important, while only one-third of both groups viewed getting a job in a city as very important. No statistically significant association was found between career choice and nine of the 10 variables used as measures of motivation. A statistically significant relationship ($p < .05$) was observed between career choice and the degree of importance attached to working in a prestigious job, i.e., a larger proportion of nontraditional majors indicated that working in a prestigious job was very important to them.

Items used to measure level and type of motivation during Phase II were identical to those used in Phase I of the research. The statistical procedure was expanded in order to discover underlying patterns of relationships among the items by reduction through factor analysis. Using the eigen-value criterion, it was observed that one factor summarized with a fairly high degree of precision (63.8% of the total variance) the information contained in the 10 motivation measures. The five items which clustered were decidedly characteristic of motivation for status; the items were: (1) getting a job in a city, (2) working in a prestigious job, (3) making personal decisions and being own boss, (4) living better than parents, and (5) making a lot of money. Responses to these items were summated and trichotomized in order to arrive at high,

Table 40. Career Choice by Motivation: Percent Distribution of Responses. 1981

ITEMS	Traditional Majors N=542				Nontraditional Majors N=439			
	Very Important	Somewhat Important	Slightly Important	Not Important	Very Important	Somewhat Important	Slightly Important	Not Important
Getting ahead in life is ...	*91	8	0	1	90	9	1	0
Opportunity for advancement is ...	*89	10	1	0	91	8	1	0
Steady work and security are ...	*85	13	2	0	90	9	1	0
Patience and hard work are ...	*80	18	2	0	82	15	2	1
Opportunity to help others who are disadvantaged is ...	*73	25	2	0	71	26	3	0
Making a lot of money is ...	*61	33	5	1	63	31	4	2
Making personal decisions and being own boss are ...	*58	35	5	2	60	33	6	1
Being able to live better than parents is ...	*51	31	10	8	52	30	11	7
Working in a prestigious job is ...	**41	42	14	3	47	40	8	5
Getting a job in a city is ...	*36	35	19	10	33	41	16	10

* $p > .05$ (not significant)

** $p < .05$

moderate, and low levels of status motivation. Contingency table analysis was conducted, and joint frequency distributions were analyzed using the chi-square test of difference to determine whether the relationship between the variables was statistically significant. Analysis of Phase II data, as presented in Table 41, shows no statistically significant

Table 41. Career Choice by Level of Status Motivation, 1982

Career Choice	Level of Status Motivation						Total	
	High		Moderate		Low			
	N	%	N	%	N	%	N	%
Traditional	158	34	143	31	161	35	462	41
Nontraditional	235	36	198	30	222	34	655	59
Total	393	35	341	31	383	34	1117	100

$X^2 = .33554$ with 2 df, $p > .05$
Missing Observations: 10

relationship ($p > .05$) between students' career choices and their levels of status motivation.

Motivation and Residence

The relationship between motivation and residence was examined during both Phase I and Phase II of the study. The analysis of 1981 data, presented in Table 42, shows no statistically significant relationship between career choice by residence and the following motivational variables: getting ahead in life, advancement, steady work and security, helping others, making a lot of money, being own boss, living better than parents, and getting a job in a city.

In addition, no statistically significant relationship was found between the amount of importance placed on patience and hard work by rural, urban, and out-of-state traditional and nontraditional majors. Although a larger proportion (85%) of rural nontraditional majors than rural traditional majors (77%) indicated that patience and hard work were very important to them, a greater percentage of urban traditional (86%) than

urban nontraditional (82%) majors indicated that patience and hard work were very important to them. The greatest difference in the response pattern is observed for out-of-state residents. Eighty-five percent of traditional majors coming from states other than South Carolina as compared to only 70% of nontraditional majors from other states viewed patience and hard work as very important. Out-of-state nontraditional majors and rural traditional majors placed less importance on patience and hard work than did any of the other four groups.

Generally, nontraditional majors placed more importance on working in a prestigious job than did traditional majors. A statistically significant relationship ($p < .01$) was observed between the amount of importance attached to working in a prestigious job by career choice and residence. Approximately 47% of urban respondents, both traditional and nontraditional, and nontraditional rural respondents indicated that working in a prestigious job was very important to them, while only 30% of traditional out-of-state respondents indicated the same.

Table 42. Career Choice by Motivation Variables and Residence: Percent Distribution of Responses, 1981

ITEMS	Traditional Majors N=542				Nontraditional Majors N=439			
	Very Important R U O	Somewhat Important R U O	Slightly Important R U O	Not Important R U O	Very Important R U O	Somewhat Important R U O	Slightly Important R U O	Not Important R U O
Getting ahead in life is ...	*90 90 95	9 10 3	– 0 0	– 0 2	89 88 94	10 9 6	1 3 0	– 0 0
Opportunity for advancement is ...	*89 90 85	10 9 15	1 1 0	– 0 0	93 89 86	6 10 14	1 1 0	– 0 0
Steady work and security are ...	*85 88 76	12 10 22	2 2 2	1 0 0	88 93 92	11 7 4	1 0 4	– 0 0
Patience and hard work are ...	*77 86 85	20 12 14	3 2 1	0 0 0	85 82 70	14 16 22	– 1 8	– 1 0
Opportunity to help others who are disadvantaged is ...	*74 68 73	24 30 25	2 2 2	0 0 0	73 70 61	23 29 37	4 1 2	– 0 0
Making a lot of money is ...	*61 58 63	32 38 32	5 3 5	2 1 0	64 60 60	31 31 28	3 7 10	2 2 2
Making personal decisions and being own boss are ...	*60 55 55	33 39 39	5 5 3	2 1 3	58 67 59	35 26 37	6 6 2	1 1 2
Being able to live better than parents is ...	*53 49 40	30 31 33	10 7 18	7 13 9	57 45 44	27 34 36	11 10 14	5 11 6
Working in a prestigious job is ...	**41 47 30	39 45 57	16 8 7	4 0 7	47 48 45	40 43 35	9 3 12	4 6 8
Getting a job in a city is..	*36 38 32	33 36 46	21 16 14	10 10 8	33 36 27	42 38 49	15 17 16	10 9 8

*p > .05 – < 1% R: rural U: urban O: out-of-state

**p < .01

In Phase I of the research a statistically significant relationship was observed for only one of the motivational variables when run against career choice and residence. Moreover, in Phase II, when the number of items was reduced through factor analysis and scaled, no statistically significant difference in the level of status motivation by residence was found, as seen in Table 43. Therefore, the results of the data for the

Table 43. Level of Status Motivation by Residence, 1982

Level of Status Motivation	Urban		Rural		Out-of-State		Total	
	N	%	N	%	N	%	N	%
High	61	33	285	36	46	35	392	35
Moderate	60	33	238	30	45	34	343	31
Low	63	34	278	34	42	31	383	34
Total	184	100	801	100	133	100	1118	100

$X^2 = 1.4858$ with 4 df, $p > .05$
Missing Observations: 9

the two-year period indicate that generally there is no statistically significant difference in the motivational levels of black students whether they come from urban or rural South Carolina or from other states.

Status Motivation and Socioeconomic Level

When the relationship between level of status motivation and socioeconomic level was examined for the senior segment of the population, no statistically significant relationship was evident. However, when freshman responses were examined, a statistically significant relationship ($p = .05$) was observed (see Table 44) between level of status motivation and socioeconomic level. Generally, the lower the socioeconomic level the higher was the level of status motivation.

Table 44. Level of Status Motivation by Socioeconomic Level: Freshmen, 1982

Level of Status Motivation	Socioeconomic Level						Total	
	High		Moderate		Low			
	N	%	N	%	N	%	N	%
High	85	33	92	38	97	43	274	38
Moderate	83	32	88	36	60	27	231	32
Low	90	35	65	26	66	30	221	30
Total	258	35	245	34	223	31	726	100

X^2 = 9.48404 with 4 df, p = .05
Missing Observations: 52

Career Choice by Educational Aspirations/Plans

During both phases of the research, students were asked to indicate whether they planned to attend graduate or professional school. The results of data analyses, as shown in Tables 45 and 46, for 1981 and 1982, indicated that there were no statistically significant differences ($p > .05$) in the graduate and professional school plans of traditional and nontraditional majors. In each instance, more than 80% of all students indicated that they plan to attend graduate or professional

Table 45. Career Choice by Educational Plans, 1981

Item: Do you plan to pursue a graduate or professional degree after you have earned the bachelor's degree?

Career Choice	Total		Plan to Pursue Graduate Degree			
			Yes		No	
	N	%	N	%	N	%
Traditional	524	56	433	83	91	17
Nontraditional	420	44	339	81	81	19
	944	100	772	82	172	18

X^2 = .5745 with 1 df, $p > .05$
Missing Observations: 51

Table 46. Career Choice by Educational Plans, 1982

Item: Do you plan to pursue a graduate or professional degree after you have earned the bachelor's degree?

Career Choice	Total		Plan to Pursue Graduate Degree			
			Yes		No	
	N	%	N	%	N	%
Traditional	437	41	379	87	58	13
Nontraditional	623	59	519	83	104	17
	1060	100	898	85	162	15

$X^2 = 2.3614$ with 1 df, $p > .05$
Missing Observations: 67

school. An unrealistically large percentage of these students, without regard to career choice, aspire to advanced degrees. In this regard, Beardslee and O'Dowd (1962) concluded that "virtually all studies of occupational preferences among high school and college students reveal an unrealistically high selection of professsional careers" (in Sanford, p. 607).

Discussion

Beginning in the elementary years and continuing through each successive stage of secondary education, the attrition rate for children and youth from lower socioeconomic backgrounds is greater than it is for middle- and upper-class youth. Douvan and Kaye (1962) emphasized that for youngsters from upper- and middle-class backgrounds, the question of whether to attend college seldom arises; these youth have been socialized to view college going as the natural course of activities to follow graduation from high school. However, for most youth from lower-class backgrounds, the decision to attend college is often a problematic one. Not only is college attendance more of a problem for lower status youth but finding employment is also more of a problem. The findings of Lipset and Bendix (1959) indicated that the sons of

higher-status families are more likely to achieve high-status initial jobs without the benefit of a college education than are the sons of lower-status families.

In 1975 the proportion of black youth, according to the National Advisory Committee on Black Higher Education (1980), in the age ranges 16-19, 20-24, and 25-34 who were enrolled in college was considerably less than their representation in the population of each age cohort. The gap between the proportion of whites and the proportion of blacks (ages 16-34) enrolled in higher education institutions is broadening. The majority of these youth, like the youth in this study population, are from lower-socioeconomic backgrounds and are first generation college entrants. Thus most blacks who enroll in college are a highly select group because they comprise a unique segment of the limited-resource population who have, despite obstacles, managed to enroll in college. Given this understanding, it is not surprising that in most instances no statistically significant relationship was observed between the motivational levels of traditional and nontraditional majors, regardless of residence.

It is reasoned that no statistically significant differences were observable among senior respondents with regard to level of motivation by socioeconomic level because the senior population formed a more homogeneous group. Those students who were most dissimilar may have already been weeded out through attrition, whether academic or non-academic. The students who remained in college through the senior year were probably highly and, more or less, equally motivated, despite socioeconomic level.

On the other hand, the statistically significant relationship observed between level of status motivation and socioeconomic levels of freshman respondents may indicate that, of those persons who come to college, the poorest of the limited resource students tend to have higher levels of status motivation upon college entrance. It is plausible that these students realize that they are more likely than any other group, without the benefit of a college education, to be assigned menial low-level employment. In short, a college education to these youth may represent the only means of possible socioeconomic mobility.

VARIABLE 6: CAREER CHOICE AND SELF-CONCEPT

During Phase I of the investigation self-concept was measured by students' responses to 10 Likert-type items that were designed to assess self-concept in relationship to (1) leadership ability, (2) academic ability, (3) athletic ability, (4) personality, and (5) physical appearance. The analysis of data involved the use of contingency tables; the joint frequency distributions were analyzed using the chi-square test of difference to determine whether the variables--career choice run against each of the items used to measure self-concept--were statistically significant.

Self-Concept and Career Choice

The analysis of data for the total population reveals no statistically significant relationship between career choice and self-perception on one of the leadership dimensions, on personality, on three dimensions of academic self-concept, on physical appearance, or on athletic ability. However, a statistically significant relationship was observed between career choice and students' perceptions of their ability to work well without close supervision and their perceptions of their performance in mathematics and science.

As seen in Table 47, 50% of traditional majors, as compared to 58% of nontraditional majors, indicated that they work well without close supervision most of the time, while 42% of traditional majors, as compared to only 37% of nontraditional majors, indicated that they work well without close supervision some of the time. The chi-square test of difference shows a statistically significant relationship ($p < .05$) between career choice and students' perceptions of their abilities to work without close supervision, i.e., to be self-directing. A greater percentage of students who selected nontraditional majors indicated that they work well without close supervision most of the time, and a smaller percentage of this group indicated that they seldom or never work well without

Table 47. Career Choice by Self-Concept: Percent Distribution of Responses, 1981

Items	Traditional Majors N = 542			Nontraditional Majors N = 439		
	Most of the time	Some of the time	Seldom or never	Most of the time	Some of the time	Seldom or never
In a group situation, I find myself starting the activities	*13	55	32	12	58	30
I work well without close supervision	**50	42	8	58	37	5
I get along well with others	*89	10	1	86	13	1
With respect to my personality, I feel "good" about myself	*85	13	2	85	14	1
I perform better than most of my classmates in math and science	**10	58	32	16	58	26
I perform better than most of my classmates in subjects like English, literature, and reading	*25	50	25	23	56	21
I perform better than most of my classmates in art, music, and drama	*22	35	43	21	36	43
With respect to my overall academic abilities, I feel "good" about myself	*44	50	6	48	44	8
With respect to my physical appearance, I feel "good" about myself	*78	19	3	80	16	4
With respect to my athletic abilities, I feel "good" about myself	*55	27	18	58	26	16

*$p > .05$
**$p < .05$

close supervision.

When student responses by career choice are examined relative to their perceptions of their performance in mathematics and science, it is observed that a greater percentage of nontraditional majors (16%), as compared to traditional majors (10%), indicated that they perform better than most of their classmates in mathematics and science most of the time. An equal proportion of both traditional and nontraditional majors indicated that they perform better than their classmates in mathematics and science some of the time. The chi-square test of difference shows a statistically significant relationship ($p < .05$) between career choice and students' perceptions of their academic abilities in mathematics and science. A greater percentage of respondents who were nontraditional majors indicated that they perform better than most of their classmates in mathematics and science most of the time, while a considerably smaller proportion of these respondents indicated that they never or seldom perform better than their classmates in mathematics and science.

When freshman responses to the 10 items used to measure self-concept are examined it is observed that, as shown in Table 48, the response pattern differed according to career choice on only one of the items. Although no statistically significant relationship was found between career choice and either dimension of leadership, a greater proportion of nontraditional majors (55%) than traditional majors (47%) indicated that they work well without close supervision most of the time. Conversely, a smaller proportion of nontraditional majors (6%) than traditional majors (9%) indicated that they seldom or never work well without close supervision. These data suggest, that among freshman respondents, nontraditional majors tend more often to view themselves as being self-directed.

The analysis of data shows a statistically significant relationship between traditional and nontraditional freshmen with regard to their perceptions of their performance in mathematics and science. Again, a greater proportion of nontraditional freshman respondents (16%), as compared to traditional freshman respondents (9%), indicated that they perform better than most of their classmates in mathematics and science most of the time.

Table 48. Career Choice by Self-Concept: Percent Distribution of Responses, 1981 Freshmen

Items	Traditional Majors N = 427			Nontraditional Majors N = 388		
	Most of the time	Some of the time	Seldom or never	Most of the time	Some of the time	Seldom or never
In a group situation, I find myself starting the activities	*10	56	34	11	57	32
I work well without close supervision	*47	44	9	55	39	6
I get along well with others	*89	10	1	86	13	1
With respect to my personality, I feel "good" about myself	*84	14	2	85	14	1
I perform better than most of my classmates in math and science	**9	60	31	16	57	27
I perform better than most of my classmates in subjects like English, literature, and reading	*23	49	28	21	55	24
I perform better than most of my classmates in art, music, and drama	*20	35	45	22	33	45
With respect to my overall academic abilities, I feel "good" about myself	*78	19	3	80	16	4
With respect to my physical appearance, I feel "good" about myself	*54	28	18	60	23	17
With respect to my athletic abilities, I feel "good" about myself	*43	51	6	49	44	7

*p > .05
**p < .05

An examination of senior responses relative to self-concept and career choice shows only one of the variables to be statistically significant. Although not statistically significant, a considerably larger proportion of nontraditional majors (75%) than traditional majors (62%) indicated that they work well without close supervision, as shown in Table 49. It is interesting to observe that twice as many senior traditional majors (27%) as compared to nontraditional majors (14%) indicated that they perform better than most of their classmates in art, music, and drama most of the time. The chi-square test of difference shows a statistically significant relationship ($p < .05$) between career choice and the perceptions of senior respondents relative to their performance in art, music, and drama.

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Table 49. Career Choice by Self-Concept: Percent Distribution of Responses, 1981 Seniors

Items	Traditional Majors N = 115			Nontraditional Majors N = 71		
	Most of the time	Some of the time	Seldom or Never	Most of the time	Some of the time	Seldom or never
In a group situation, I find myself starting the activities	*24	53	23	18	64	18
I work well without close supervision	*62	33	5	75	25	0
I get along well with others	*90	10	0	87	13	0
With respect to my personality, I feel "good" about myself	*89	11	0	83	14	3
I perform better than most of my classmates in math and science	*14	51	35	14	63	23
I perform better than most of my classmates in subjects like English, litertaure, and reading	*29	54	17	30	59	11
I perform better than most of my classmates in art, music, and drama	**27	36	37	14	52	34
With respect to my overall academic abilities, I feel "good" about myself	*48	45	7	44	44	12
With respect to my physical appearance, I feel "good" about myself	*77	22	1	82	18	0
With respect to my athletic abilities, I feel "good" about myself	*56	24	20	49	38	13

*p > .05
**p < .05

Career Choice, Self-Concept, and Residence

Students' responses to the 10 self-concept items were also analyzed by career choice and residence. The analysis of data for the total group (see Table 50) shows three of the 10 self-concept variables to be statistically significant when both residence and career choice are taken into account. Although not statistically significant, larger proportions of both rural and urban nontraditional respondents than rural and urban traditional respondents indicated that they work well without close supervision most of the time. However, a larger percentage (56%) of out-of-state traditional majors than out-of-state nontraditional majors (48%) perceived themselves as being able to work well without close supervision most of the time. The data indicate that persons from rural and urban South Carolina who choose nontraditional majors may have more positive self-concepts of their abilities to be self-directing than do their cohorts who choose traditional majors. The reverse appears to be true for out-of-state residents. The chi-square test of difference, however, shows no statistically significant relationship between career choice and this dimension of self-concept when residence is taken into account.

Getting along well with others was one of the self-concept variables which proved to be statistically significant ($p < .05$). The analysis of data indicates that rural and out-of-state traditional majors more often than rural and out-of-state nontraditional majors perceived themselves as getting along well with others most of the time; the inverse was true for urban respondents.

Only one of the four academic self-concept measures proved to be statistically significant ($p < .05$)--performance in mathematics and science. Larger proportions of both rural and urban nontraditional majors indicated that they perform better than most of their classmates in mathematics and science most of the time while an equal percentage of traditional and nontraditional out-of-state respondents indicated that they perform better than most of their classmates in mathematics and science.

With respect to athletic ability, nontraditional rural and urban respondents specified more often than rural and urban traditional respondents that they feel good about their athletic abilities most of the time, while a considerably larger proportion (82%) of out-of-state traditional majors as compared to out-of-state nontraditional majors (58%) indicated that they feel good about their athletic abilities most of the time.

Table 50. Career Choice by Self-Concept and Residence: Percent Distribution of Responses, 1981

ITEMS		Traditional Majors N=542									Nontraditional Majors N=439								
		Most of the time			Some of the time			Seldom or Never			Most of the time			Some of the time			Seldom or Never		
		R	U	O	R	U	O	R	U	O	R	U	O	R	U	O	R	U	O
In a group situation, I find myself starting the activities	*	13	13	11	55	52	61	32	35	28	12	13	8	58	62	50	30	25	42
I work well without close supervision	*	50	47	56	42	39	43	8	14	1	58	61	48	37	33	46	5	6	6
I get along well with others	**	91	88	84	9	9	16	0	3	0	86	90	78	13	10	22	1	0	0
With respect to my personality, I feel "good" about myself	*	86	80	89	12	18	11	2	2	0	84	88	82	14	11	16	2	1	2
I perform better than most of my classmates in math and science	**	11	6	10	57	56	66	32	38	24	17	14	10	61	52	53	22	34	37
I perform better than most of my classmates in subjects like English, literature, and reading	*	25	21	28	50	55	39	25	24	33	22	24	26	60	53	39	18	23	35
I perform better than most of my classmates in art, music, and drama	*	22	27	14	36	30	35	42	43	51	23	18	14	36	35	35	41	46	51
With respect to my overall academic abilities, I feel "good" about myself	*	45	38	46	49	55	49	6	7	5	49	53	33	43	41	55	7	6	12
With respect to my physical appearance, I feel "good" about myself	*	75	82	85	21	15	15	4	3	0	82	81	72	14	16	2[illegible]	4	3	2
With respect to my athletic abilities, I feel "good" about myself	**	51	54	82	29	28	10	20	18	8	57	60	58	26	24	26	17	16	16

*p > .05 R: rural U: urban O: out-of-state

**p < .05

When freshman responses are examined relative to career choice and self-concept, taking residence into account, as seen in Table 51, it is observed that four measures of self-concept were found to be statistically significant. A larger proportion of nontraditional rural and urban respondents felt that they work well without close supervision most of the time, whereas a larger proportion of traditional out-of-state respondents indicated that they work well without close supervision most of the time. The association between career choice and perceptions of traditional and nontraditional majors relative to their abilities to work well without close supervision was significant at the .05 level.

A larger proportion of traditional rural and out-of-state majors as compared to nontraditional rural and out-of-state majors indicated that they get along well with others most of the time, while the reverse was true for urban traditional and nontraditional majors. The chi-square test of difference shows a statistically significant relationship ($p < .05$) between career choice and self-concept when controlling for residence.

Nontraditional rural and urban majors more often indicated that they perceive their performance in mathematics and science to be above that of their classmates most of the time, while an equal percentage (10%) of out-of-state traditional and nontraditional majors perceived that they perform better than most of their classmates in mathematics and science most of the time. The chi-square test of difference shows that the relationship between perceptions of academic performance in mathematics and science by career choice and residence is statistically significant at the .01 level.

Considerably greater proportions of rural and urban nontraditional majors and of traditional out-of-state majors indicated that they feel good about their athletic abilities most of the time as compared to other groups. The chi-square test of difference shows a statistically significant relationship ($p < .01$) between career choice and students' perceptions of their athletic abilities when residence is taken into account.

Table 51. Career Choice by Self-Concept and Residence: Percent Distribution of Responses, 1981 Freshmen

ITEMS		Traditional Majors N=427									Nontraditional Majors N=368								
		Most of the time			Some of the time			Seldom or Never			Most of the time			Some of the time			Seldom or Never		
		R	U	O	R	U	O	R	U	O	R	U	O	R	U	O	R	U	O
In a group situation, I find myself starting the activities	*	9	11	10	55	52	62	36	37	28	10	14	8	57	60	50	33	26	42
I work well without close supervision	**	46	41	55	45	43	43	9	16	2	54	60	48	40	33	46	6	7	6
I get along well with others	**	91	87	83	9	9	17	0	4	0	86	91	76	13	9	22	0	0	0
With respect to my personality, I feel "good" about myself	*	85	78	88	13	19	12	2	3	0	84	90	82	15	10	16	1	0	2
I perform better than most of my classmates in math and science	***	10	7	10	59	54	68	31	39	22	18	14	10	61	50	53	21	36	37
I perform better than most of my classmates in subjects like English, literature, and reading	*	23	19	29	50	53	40	27	28	31	20	24	26	60	52	39	20	25	35
I perform better than most of my classmates in art, music, and drama	*	20	24	14	37	29	34	43	47	52	25	20	16	32	33	35	43	47	50
With respect to my overall academic abilities, I feel "good" about myself	*	44	34	47	50	58	48	6	8	5	51	54	33	43	40	55	6	6	12
With respect to my physical appearance, I feel "good" about myself	*	75	81	87	21	15	13	4	4	0	82	80	72	13	17	26	5	3	2
With respect to my athletic abilities, I feel "good" about myself	***	51	48	82	30	31	10	19	21	8	59	61	58	24	21	26	17	18	16

*p > .05
**p < .05
***p < .01

R: rural U: urban O: out-of-state

When senior responses were extracted and analyzed (see Table 52), it is observed that comparisons of rural and urban respondents on self = concept items show no statistically significant association between traditional and nontraditional career choices when controlling for residence.

The Phase II data for self-concept showed no statistically significant relationship between self-concept and career choice.

Discussion

Senior respondents who chose traditional majors, without regard to residence, appear to have more positive self-concepts relative to their abilities in art, music, and drama.

Freshman respondents who chose nontraditional majors, without regard to residence, have more positive concepts of their abilities in mathematics and science. This group indicated that they feel good about their abilities in mathematics and science almost twice as often as do their cohorts who chose traditional majors. When controlling for residence, freshman rural and urban nontraditional majors more often than freshman rural and urban traditional majors indicated that they work well without close supervision, perform better in mathematics and science, and feel good about their athletic abilities. The reverse is true for freshman respondents who come from states other than South Carolina. On the other hand, rural and out-of-state freshmen who chose traditional majors, more often than their nontraditional cohorts, had more positive concepts of their abilities to get along well with others. There was a reverse response pattern among urban freshman.

Table 52. Career Choice by Self-Concept and Residence: Percent Distribution of Responses, 1981 Seniors

ITEMS	Traditional Majors N=115						Nontraditional Majors N=71					
	Most of the time		Some of the time		Seldom or Never		Most of the time		Some of the time		Seldom or Never	
	R	U	R	U	R	U	R	U	R	U	R	U
In a group situation, I find myself starting the activities	25	20	54	52	21	28	21	7	61	73	18	20
I work well without close supervision	62	63	34	29	4	8	77	67	23	33	0	0
I get along well with others	90	92	10	8	0	0	87	87	13	13	0	0
With respect to my personality, I feel "good" about myself	90	84	10	16	0	0	86	73	12	20	2	7
I perform better than most of my classmates in math and science	17	4	49	60	34	36	14	13	63	67	23	20
I perform better than most of my classmates in subjects like English, literature, and reading	30	28	53	60	17	12	30	27	59	60	11	13
I perform better than most of my classmates in art, music, and drama	25	36	35	36	40	28	16	6	53	47	31	47
With respect to my overall academic abilities, I feel "good" about myself	48	50	44	46	8	4	43	47	43	47	14	6
With respect to my physical appearance, I feel "good" about myself	76	84	23	16	1	0	80	87	20	13	0	0
With respect to my athletic abilities, I feel "good" about myself	51	72	25	20	24	8	48	53	38	40	14	7

$p > .05$ R: rural U: urban

EXTRANEOUS VARIABLE: CHANGE OF MAJOR--NATURE, FREQUENCY, AND RATIONALE

During both phases of the research, senior respondents were asked to indicate whether they had changed their majors since their freshman year in college (See Appendix A, page 113 for actual items) and to indicate their reasons for change of major. When the nature of changes made in choice of major is examined (See Table 53) it is observed that two-thirds of the 1982 senior respondents did not change their original

Table 53. Percent Distribution Indicating Change of Major by Seniors, 1982

Type of Changes	N=343 Number	Percent
Traditional to Traditional	21	6
Traditional to Nontraditional	23	7
Nontraditional to Nontraditional	34	10
Nontraditional to Traditional	25	7
Undeclared to Traditional	4	1
Undeclared to Nontraditional	5	2
No Change	231	67

majors. Of this senior population, 6% changed from one traditional major to another traditional major; 7% changed from a traditional to a nontraditional major; 10% changed from one nontraditional major to another; 7% changed from a nontraditional major to a traditional major; of the 3% who did not declare a major upon entry, 1% later selected traditional majors and 2% later selected nontraditional majors.

The analysis of data shows, as seen in Table 54, that 31% of the senior respondents surveyed in 1981 changed majors once: 5% changed majors twice; and 1% changed majors three times. Approximately 63% of these respondents never changed majors.

In 1982, 23% of the senior respondents indicated that they had changed majors one time, while 4% indicated that they had changed majors twice and 2% changed majors three times. Of the 1982 senior respondents, 71% retained their original majors.

Table 54. Frequency of Change of Career Choice/College Major: Percent Distribution of Senior Responses, 1981 and 1982

Frequency of Change	1981 Respondents (N=188)		1982 Respondents (N=338)		Total	
	N	%	N	%	N	%
One Time	59	31	79	23	138	26
Two Times	9	5	14	4	23	5
Three Times	1	1	5	2	6	1
No change	119	63	240	71	359	68
Total	188	100	338	100	526	100

Missing Observations: 5

Table 55 shows the rank order and percent distribution of senior responses relative to the reasons given for change of major. Notice that

Table 55. Reasons Given by Seniors for Change of Career Choice/College Major: Rank Order and Percent Distribution of Responses, 1981 and 1982

Responses	1981 (N=69)			1982 (N=99)			Total	
	Rank	N	%	Rank	N	%	N	%
Many courses too difficult in previous major(s)	3	9	13	6.5	5	5	14	8
Lack of interest in subject area(s)	4	6	9	2	19	19	25	15
Realized that graduate or professional training would be required for which I lacked financial resources	–	–	–	6.5	5	5	5	3
Became aware of another program of study that I liked better	1	24	35	1	41	42	65	39
Discovered a more lucrative career field in which I would be more likely to find employment	5	5	7	3	15	15	20	12
Had a communication problem with some of the instructors in previous major	–	–	–	4.5	7	7	7	4
Personal Choice	2	21	30	–	–	–	21	12
Other	6	4	6	4.5	7	7	11	7
Total		69	100		99	100	168	100

more than twice as many seniors in 1981 as in 1982 indicated that their changes in major were due to difficulties with required courses, whereas more than twice as many of the 1982 seniors changed majors because they lacked interest in the subject area. It is interesting to observe that the number one reason given in both 1981 and 1982 for change of major was discovery of an area of study of greater interest.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The findings relative to the relationship between socioeconomic level and career choice show no statistically significant relationship, at least as defined and measured in this investigation. These findings are congruent with those of Irby (1978) who studied black college health and non-health aspirants and implicit in the findings of Schwarzweller (1978) who conducted a comparative study of rural youth in two cultures.

It is interesting to observe that the relationship between socioeconomic level and residence was found to be precisely what one would expect. That is, a statistically significant relationship was found between socioeconomic level and residence during both phases of the study; rural residents, despite career choice, more often indicated that they come from families whose socioeconomic level is low.

Recommendation 1

It is apparent that additional research is necessary to further explore the relationship between career choice and socioeconomic levels of black college students, particularly those from rural areas.

The findings with regard to career choice and cost of post-baccalaureate education are not consistently statistically significant for either freshmen or seniors. Nevertheless, a greater percentage of traditional majors, when compared to nontraditional majors, indicated that cost of education and training was "very much" a factor in their choice of a career.

The findings for the 1981 freshman population conform with what is generally expected, i.e., there was a statistically significant association between career choice and the degree of consideration given to the cost of post-baccalaureate education. Students who chose traditional careers more often indicated that cost of education was "very much" a consideration in their choice of a career. It is plausible that these students chose majors in which neither graduate nor professional training is required for entry level employment.

For 1981 senior respondents, the findings reveal no statistically significant relationship between career choice and degree of consideration given to cost of post-baccalaureate education. These findings are somewhat difficult to interpret when Phase I seniors and freshmen are compared. It is reasoned that the rate of attrition (57%) accounts for the increased homogeneity of the senior group and, consequently, of the

response pattern. It may be that those students who had the least financial resources and, therefore, the greatest concern about cost comprised a considerable proportion of the dropouts.

Phase II data for freshmen show no statistically significant relationship between career choice and the degree of consideration given to the cost of education and training beyond the bachelor's degree. Student responses may have been influenced by the worsening of economic conditions in the United States. The elimination of social security benefits for college students, more stringent eligibility requirements for Pell grants, and decreased appropriations for educational grants, coupled with higher tuition and record post-Depression unemployment rates, have caused students throughout the country, and particularly economically poor students, increased concern about the financing of higher education. Only 20% of the traditional freshmen in 1981 indicated that cost was "very much" a factor, while, in 1982, 38% of traditional freshmen gave the same response. The percentage of nontraditional freshmen who indicated that cost was "very much" a concern increased from 15% in 1981 to 34% in 1982.

No statistically significant difference was found in the degree of consideration given to the cost of education and training beyond the bachelor's degree by traditional and nontraditional senior respondents in 1982. The percent distribution of 1982 senior responses, relative to the degree of concern about cost, does not reflect the increased concern as seen in 1982 freshmen. In addition to the possible influence of attrition, students who were seniors in 1982 had already selected a major prior to the recent changes in the economic climate. Their choices were generally based on conditions during a more "normal" period in terms of economic conditions in the United States. In summary, these data suggest that South Carolina State College students who chose traditional majors were more concerned about the cost of post-baccalaureate education.

During both phases of the research, a statistically significant relationship was found between where one lives and how much consideration was given to the cost of post-baccalaureate education. Despite the large sample size, the percent distribution of responses clearly reflects that differences do exist in the amount of consideration given to the cost of education beyond the bachelor's degree by various segments of the study population. A greater percentage of rural students consistently indicated that cost of education was very much a factor in their choice of a career. These findings concur with what is implied by Lyson (1977) who concluded that regional circumstances in rural areas (marginal economic opportunity) may "dampen the educational aspirations and

expectations" of rural youth (p.19). Additionally, Gurin and Epps (1975) explicitly stated that although many academically able minority students may desire to continue their education, they are hindered by financial limitations.

Recommendation 2

Implications for administrators, teachers, and counselors are inherent in these findings; if academically capable, low-income youth are to realize optimum development of their talents and skills, they must receive career guidance information during the high school years which will assist them in developing long-range educational goals without regard to financial considerations. Traditional counseling programs are inundated with routine responsibilities related to disciplinary problems, emotional and psychological counseling, testing and evaluating, and, hence, have little time to devote to the deliberate counseling of low = income youth, whose families are often lacking in the resources required for the career guidance and information they need in order to develop and crystallize long-range educational and vocational goals. Secondary and post-secondary administrators, teachers, and counselors must combine their resources to develop systematic programs for the identification and recruitment of academically skilled youth, particularly those from rural communities, since rural students express greater concern about the financing of education beyond the bachelor's degree.

Figure 5 diagrams the lines of communication which must be developed in order to establish a cooperative career counseling and financial information and assistance program. Such a system would involve high schools, colleges, and agencies which fund advanced degree programs into which academically able, economically poor students may be channeled. The identification, selection, and counseling of students should begin at the high school level and continue through the period of undergraduate schooling.

High school teachers and counselors, with the necessary support of their school administrators and the assistance of college counselors, should provide low-income students and their parents with information pertaining to occupational outlook, changing labor market demands, and sources of financial assistance for both undergraduate and graduate education and training. After these students begin post-secondary education, it is vital that college teachers and advisors, with the assistance of career development counselors, continue to assist and encourage students, as they enter the period of "realistic choice," to ex-

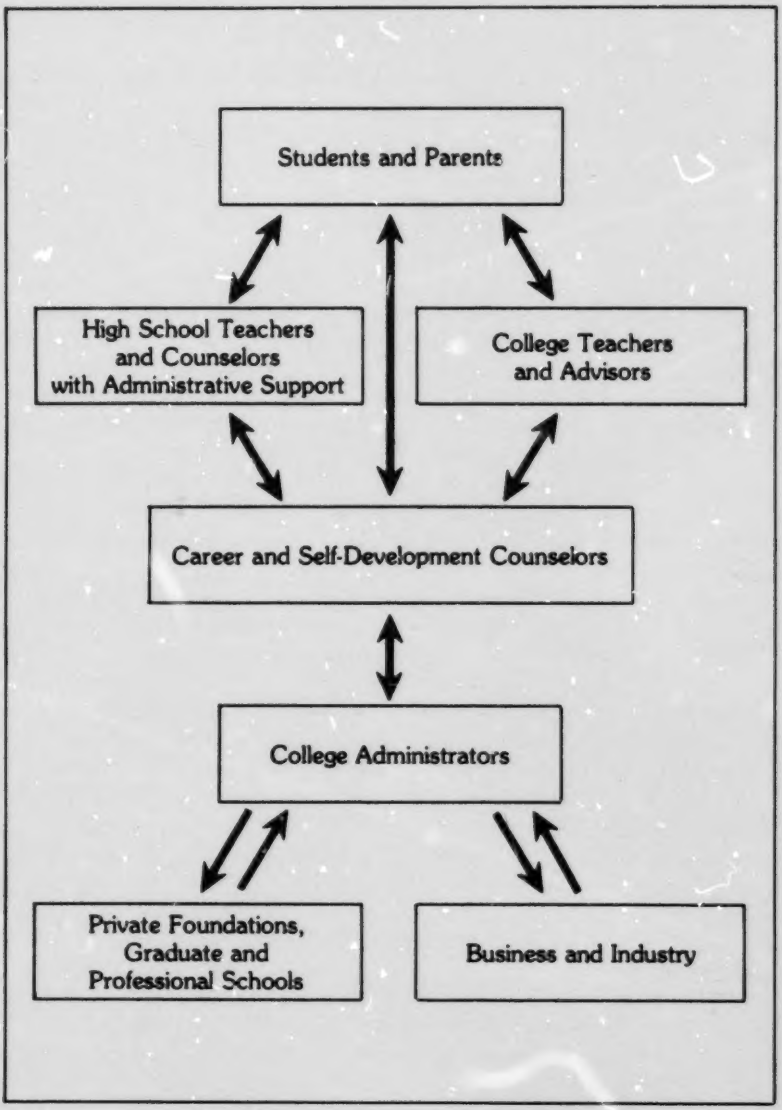
Students and Parents
High School Teachers and Counselors with Administrative Support
College Teachers and Advisors
Career and Self-Development Counselors
College Administrators
Private Foundations, Graduate and Professional Schools
Business and Industry

Figure 5. Model for Cooperative Career Counseling and Financial Information and Assistance Program.

plore career possibilities and establish long-range goals, prior to the choice of a college major. If such measures were taken, it seems likely that such a large percentage (about 35%) of students would not find it necessary to change their college major one or more times after the freshman year.

Central to cooperative guidance and financial information and assistance programs are career development counselors who establish ongoing relationships with both secondary and post-secondary administrators, teachers, and counselors, as well as with possible funding agencies identified by college administrators. College administrators form the foundation upon which such a cooperative system rests, since they would shoulder the responsibilities of procuring sources of financial assistance for the nontraditional graduate and professional education of economically poor, talented, rural youth.

Special career guidance programs, that focus on financial assistance for graduate and professional education in nontraditional fields, would have the potential for eliminating cost as a deterrent to the selection of nontraditional careers by low-income, academically able, rural students. It these students are made aware of possible sources of financial assistance for graduate and professional schools prior to their selection of a major, their selections are likely to be based upon factors other than cost. Such programs could also result in an increase in the number of rural, minority men and women who are qualified for higher order nontraditional professional occupations, thereby resulting in an increased pool from which federal, state, and local revenues flow.

The analysis of data revealed no statistically significant relationship between career choice and political participation of parents.

The findings indicate there to be no statistically significant relationship between student career choices and (1) size of high school, (2) number of counselors available in the high school, (3) level of desegregation in the high school, (4) level of student participation in extracurricular activities, (5) racial/ethnic identity of the primary in-school influencer, and (6) communication with the high school counselor as measured by either the frequency with which students sat and talked with the counselor or how helpful the students perceived their high school counselors to be. The question of whether there is a significant relationship between college career choice and high school curriculum followed remains unanswered since the findings for Phase I data and Phase II data are inconclusive.

It is interesting to note that a greater percentage of students who chose nontraditional college majors attended unaccredited high

schools. Unaccredited high schools are generally located in the smallest, poorest communities. However, smaller schools are usually able to provide greater opportunities for students to interact on a more personal and informal level with teachers, counselors, and school administrators. Since there are fewer people with whom to compete, students are more likely to be placed in an academic curriculum and to have greater opportunities to develop a wider range of talents and skills through active participation in school life.

In small communities fewer people, particularly minorities, are engaged in nontraditional occupations; therefore, students who reside in these communities receive less exposure to community persons who might serve as nontraditional career models. Perhaps the valued occupational role models of these students include regional or national personalities such as those covered by the news media, as well as fictional characters portrayed in television, the movies, and books.

Taking into consideration both the nature of the school and the limitations of the community, it is conceivable that these students make nontraditional career choices because they feel a sense of obligation to their communities and intend to improve the quality of life in these communities by preparing themselves to provide services in nontraditional career areas.

The findings relative to the relationship between career choice and key influencers are inconclusive in the sense that in 1981 a greater proportion of traditional than nontraditional majors specified that they were most influenced by teachers and counselors while during Phase II (1982), a greater percentage of nontraditional majors indicated that they were influenced by teachers and counselors. Although it is difficult to pinpoint the reason(s) for the inconsistent findings, it is clear that (1) the teacher was cited as the primary in-school influencer of students' career choices, (2) traditional majors more often reported that no one in particular guided their career choices, and (3) an average of 65% of both traditional and nontraditional majors indicated that their key career choice influencers were persons outside of the school setting. Of those persons who specified that their career choices were influenced by someone within the secondary school, 85% reported that it was another black person.

Recommendation 3

Given this finding, it seems imperative that teacher training institutions within the state make every effort to recruit and train minorities, especially blacks, to become well qualified public school educators since

blacks make up a substantial segment of the school population and are more likely to identify with and seek assistance from other blacks.

As evidenced by the research findings, teachers, through their daily interpersonal relationships with students, not only direct learning, but also exert considerable influence on career choice. The teacher, more than any other individual, was specified as the primary person who influenced the respondents' career choices. That students from limited resource families depend so heavily on teachers for career guidance has implications for both teacher education curriculums and inservice programs for teachers. Most teachers may not be well-equipped for their roles as guidance and career information specialists since they are seldom required to have any formal preparation in career development and guidance. According to Woellner (1980) only two states, Oregon and Tennessee, require teachers to have training in career counseling or guidance for state certification. Three other states--Illinois, Kansas, and New Mexico--accept courses in career counseling to satisfy teacher certification elective requirements.

Recommendation 4

Given the knowledge of the role of the teacher in guidance and career development activities, it seems appropriate that state departments of education should: (1) require preservice teachers to have some minimal training in guidance and career development and (2) assume the responsibility for providing inservice training for teachers previously certified in order that all teachers may be better prepared to assist students in these areas.

In most instances no statistically significant relationship was observed between the motivational levels of traditional and nontraditional majors, regardless of residence. For most youth from lower-class backgrounds, the decision to attend college is often a problematic one. Not only is college attendance more of a problem for lower status youth, but finding employment is also more of a problem. The findings of Lipset and Bendix (1959) indicated that the sons of higher-status families are more likely to achieve high-status initial jobs without the benefit of a college education than are the sons of lower-status families. Most blacks who enroll in college are a highly select group because they comprise a unique segment of the limited-resource population who have, despite obstacles, managed to enroll in college. It is plausible that these students realize that they are more likely than any other group, without the

benefit of a college education, to be asigned menial low-level employment. In short, a college education to these youth may represent the only means of possible socioeconomic mobility.

The findings relative to self-concept and career choice indicate that senior respondents who chose traditional majors, regardless of residence, had more positive concepts of their abilities in art, music, and drama. Freshman respondents who chose nontraditional majors, without regard to residence, had more positive concepts of their abilities in mathematics and science. This group indicated that they felt good about their abilities in mathematics and science almost twice as often as did their cohorts who chose traditional majors. When controlling for residence, freshman rural and urban nontraditional majors more often than freshman rural and urban traditional majors indicated that they worked well without close supervision, performed better in mathematics and science, and felt good about their athletic abilities. The reverse was indicated by freshman respondents who come from states other than South Carolina. On the other hand, rural and out-of-state freshmen who chose traditional majors, more often than their nontraditional cohorts, had more positive concepts of their abilities to get along well with others. There was a reverse response pattern among urban freshmen.

Recommendation 5

Since this research is exploratory in nature, additional research is recommended which makes use of these findings as the basis for further investigation. It is recommended that segments of the same instrument be utilized with a study population which consists of a random sample of freshmen, sophomores, juniors, and seniors enrolled at all historically black colleges in South Carolina and a biracial comparison group of students enrolled at one of the major historically white institutions in South Carolina. Further, it is suggested that the data generated in such a study be subjected to more stringent tests of significance.

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APPENDIXES

APPENDIX A
Instruments

INVENTORY OF SELECTED INFLUENCES ON CAREER CHOICE

DIRECTIONS

This booklet contains questions that were designed to help us understand some of the possible influences on your decision to pursue a career in the area which you have selected. PLEASE SELECT ONLY ONE RESPONSE FOR EACH QUESTION.

Be assured that your individual responses are confidential; individual responses will not be released to any person or agency without your written request. Try to be as honest as you can and select those answers that best describe you and your situation. THERE ARE NO RIGHT OR WRONG ANSWERS.

SECTION I: DEMOGRAPHIC ITEMS

1 Student Identification Number _____ Age _____ Sex _____

2 Permanent Home Address: _____
Number & Street or Route & Box Number, etc.

_____
County City State & Zip Code

3 Name of your high school: _____

4 Location of your high school: _____
County City State

SECTION II: CAREER CHOICE

5 In the space provided, indicate your choice of a major program. **Please check only one.**

- ☐ 1. Art Education
- ☐ 2. Biology
- ☐ 3. Biology (Teaching)
- ☐ 4. Business Education
- ☐ 5. Chemistry (Teaching)
- ☐ 6. Child Development (Early)
- ☐ 7. Counselor Education
- ☐ 8. Drama (Professional)
- ☐ 9. Dramatic Arts
- ☐ 10. Elementary Education
- ☐ 11. English (Teaching)
- ☐ 12. Foods and Nutrition
- ☐ 13. Health and Physical Education
- ☐ 14. History
- ☐ 15. History (Teaching)
- ☐ 16. Home Economics Education
- ☐ 17. Home Economics (General)
- ☐ 18. Industrial Education
- ☐ 19. Library Science
- ☐ 20. Mathematics Education
- ☐ 21. Music Education
- ☐ 22. Office Administration
- ☐ 23. Pre-Law
- ☐ 24. Political Science
- ☐ 25. Political Science (Teaching)
- ☐ 26. Social Studies
- ☐ 27. Social Welfare
- ☐ 28. Sociology
- ☐ 29. Accounting
- ☐ 30. Chemistry
- ☐ 31. Civil Engineering Technology
- ☐ 32. Criminal Justice
- ☐ 33. Electrical Engineering Technology
- ☐ 34. English, Language, & Literature
- ☐ 35. French
- ☐ 36. French (Teaching)
- ☐ 37. General Business Administration
- ☐ 38. Mathematics
- ☐ 39. Mechanical Engineering Technology
- ☐ 40. Physics
- ☐ 41. Pre-Agriculture
- ☐ 42. Pre-Dentistry
- ☐ 43. Pre-Medicine
- ☐ 44. Pre-Nursing
- ☐ 45. Pre-Optometry
- ☐ 46. Pre-Veterinary Medicine
- ☐ 47. Psychology
- ☐ 48. Public Administration
- ☐ 49. Spanish
- ☐ 50. Spanish (Teaching)
- ☐ 51. Special Education
- ☐ 52. Speech Pathology & Audiology

6 Who was most influential in guiding your selection of a major? _____ Do not give name. Give relationship or position of the individual, such as teacher, counselor, coach, etc.

7 Do you plan to pursue a graduate or professional degree after you have earned the bachelor's degree? ☐ Yes ☐ No

SECTION III: SES

Gough Home Index

8 Please check one answer for each of the following questions.

Yes	No		
☐	☐	a.	Is there a telephone in your house?
☐	☐	b.	Do you have a bathtub and shower in your house? (Either combination or separate)
☐	☐	c.	Is the bathroom used only by your family members? (Not shared by any other family)
☐	☐	d.	Is your entire home heated by central system? (Furnace or electric system)
☐	☐	e.	Does your home have air conditioning?
☐	☐	f.	Does your family have two or more passenger cars?
☐	☐	g.	Did your mother graduate from high school?
☐	☐	h.	Did your mother attend a college or university?
☐	☐	i.	Did your father graduate from high school?
☐	☐	j.	Did your father attend a college or university?
☐	☐	k.	Do you have a fireplace in your home?
☐	☐	l.	Do you have a piano or electric organ in your home?
☐	☐	m.	Does your family have any servants such as a cook or maid? (At least 3 days a week)
☐	☐	n.	Does your family leave town every year for a vacation?
☐	☐	o.	Does your mother belong to any clubs or organizations such as study, art, civic clubs or political clubs?
☐	☐	p.	Does your father belong to any civic, study, service or political clubs such as the Lions Club, Chamber of Commerce, etc.?
☐	☐	q.	Have you ever had private lessons in music, dancing, art, etc., outside of school?
☐	☐	r.	Do you have your own room at home?
☐	☐	s.	Does your family take a daily newspaper?
☐	☐	t.	Do you belong to any clubs where you have to pay dues?
☐	☐	u.	Does your family have a hi-fi or a stereo set?
☐	☐	v.	Approximately how many books does your family have? Check one: ☐ 0-99 ☐ 100-499 ☐ 500 or more

SECTION IV: POLITICAL PARTICIPATION

9 Please check one answer for each of the following questions.

Yes	No		
☐	☐	a.	Do(es) your parent(s)/guardian belong to a political party?
☐	☐	b.	Do(es) your parent(s)/guardian vote in local elections?
☐	☐	c.	Do(es) your parent(s)/guardian vote in state elections?
☐	☐	d.	Do(es) your parent(s)/guardian vote in national elections?
☐	☐	e.	Do(es) your parent(s)/guardian hold elective public office?
☐	☐	f.	Do(es) your parent(s)/guardian belong to the National Urban League?
☐	☐	g.	Do(es) your parent(s)/guardian belong to the Southern Christian Leadership Conference?
☐	☐	h.	Do(es) your parent(s)/guardian belong to the NAACP?
☐	☐	i.	Do(es) your parent(s)/guardian hold membership in the voters' league?
☐	☐	j.	Do(es) your parent(s)/guardian spearhead grassroots political meetings for your community?
☐	☐	k.	Do(es) your parent(s)/guardian contribute to the financial support of any political party?
☐	☐	l.	Do(es) your parent(s)/guardian discuss public issuses such as inflation, unemployment, race relations, and local politics at home?
☐	☐	m.	Do(es) your parent(s)/guardian participate in community/civic organizations such as PTA, Boy/Girl Scouts, etc.?
☐	☐	n.	Do(es) your parent(s)/guardian hold membership in Operation PUSH?
☐	☐	o.	Do(es) your parent(s)/guardian support the political activities sponsored by your church?

SECTION V: SECONDARY EDUCATIONAL ENVIRONMENT

10 Answer each of the questions below by d. awing a circle around the letter of your response.

A. How was your high school classified?

a. AAAA (Four A)
b. AAA (Triple A)
c. AA (Double A)
d. A (Single A)

B. How many counselors worked in your high school?

a. 5 or more
b. 4
c. 3
d. 2
e. 1

C. How helpful was your high school counselor in guiding your career choice?

a. Very helpful
b. Somewhat helpful
c. Slightly helpful
d. Not helpful at all

D. What was the approximate proportion/number of white students compared to black students in your high school?

a. More whites than blacks
b. About the same number
c. Fewer whites than blacks
d. No white students

E. Which of the following curricula did you follow in high school?

a. Academic curriculum
b. General curriculum
c. Vocational and/or technical
d. Don't know

F. Approximately how many students were in each of your classes?

a. Under 25 students
b. 25 or more but less than 30 students
c. 30 students
d. 35 or more students

G. Was there an assistant principal in your school?

a. Yes
b. No

H. Were there teacher aides in your school?

a. Yes
b. No

I. Was your career selection influenced most by someone from your ethnic group in the school?

a. Yes
b. No

J. Were you influenced most by someone from within your school or someone from outside (such as family, friend, etc.).

a. From within the school
b. From outside the school

K. Indicate, in the space provided, the degree of your involvement in each of the following extracurricular activities while in high school. If the activity was not available at your high school, please place a check in the last column.

	Highly involved	Moderately involved	Slightly involved	Not involved	Not Available at my school
football	☐	☐	☐	☐	☐
basketball	☐	☐	☐	☐	☐
tennis	☐	☐	☐	☐	☐
drama	☐	☐	☐	☐	☐
debating team	☐	☐	☐	☐	☐
band	☐	☐	☐	☐	☐
student council	☐	☐	☐	☐	☐
baseball	☐	☐	☐	☐	☐
track and field	☐	☐	☐	☐	☐
wrestling	☐	☐	☐	☐	☐
chorus	☐	☐	☐	☐	☐
cheerleader	☐	☐	☐	☐	☐
majorette	☐	☐	☐	☐	☐
Future Homemakers of America	☐	☐	☐	☐	☐
Future Farmers of America	☐	☐	☐	☐	☐
Future Teachers of America	☐	☐	☐	☐	☐
honor society	☐	☐	☐	☐	☐
class officer	☐	☐	☐	☐	☐

	Highly Involved	Moderately Involved	Slightly Involved	Not Involved	Not Available at my school
pep club	☐	☐	☐	☐	☐
chess club	☐	☐	☐	☐	☐
music club	☐	☐	☐	☐	☐
yearbook staff	☐	☐	☐	☐	☐
school paper	☐	☐	☐	☐	☐
golf	☐	☐	☐	☐	☐
softball	☐	☐	☐	☐	☐

SECTION VI

11 Complete each of the following statements below by placing a check in the space provided; the check will indicate how important each item is to you.

	Very important	Somewhat important	Slightly important	Not important at all
a Getting ahead in life is	☐	☐	☐	☐
b Opportunity to help others who are disadvantaged is	☐	☐	☐	☐
c Getting a job in a city is	☐	☐	☐	☐
d Working in a prestigious job is	☐	☐	☐	☐
e Steady work and security are	☐	☐	☐	☐
f Making personal decisions and being my own boss are	☐	☐	☐	☐
g Being able to live "better" than my parents do is	☐	☐	☐	☐
h Opportunity for advancement is	☐	☐	☐	☐
i Patience and hard work are	☐	☐	☐	☐
j Making a lot of money is	☐	☐	☐	☐

SECTION VII

12 The following list contains twenty pairs of words; check in each pair the one word which best describes the way you see yourself. **Remember you are to check only one word in each pair.**

1 ☐ a. withdrawn
☐ b. talkative

2 ☐ a. calm
☐ b. anxious

3 ☐ a. insecure
☐ b. self-confident

4 ☐ a. assertive
☐ b. submissive

5 ☐ a. jolly
☐ b. gloomy

6 ☐ a. frank
☐ b. deceitful

7 ☐ a. dependent
☐ b. self-reliant

8 ☐ a. self-directed
☐ b. other directed

9 ☐ a. non-conforming
☐ b. conventional

10 ☐ a. open-minded
☐ b. conservative

11 ☐ a. smart
☐ b. slow-thinking

12 ☐ a. impulsive
☐ b. logical

13 ☐ a. intellectual
☐ b. non-academic

14 ☐ a. enterprising
☐ b. lazy

15 ☐ a. knowledgeable
☐ b. uninformed

16 ☐ a. brave
☐ b. meek

17 ☐ a. vigorous
☐ b. idle

18 ☐ a. front runner
☐ b. supporter

19 ☐ a. tough
☐ b. timid

20 ☐ a. understanding
☐ b. intolerant

SECTION VIII

13 Circle the letter of your response in each of the following items.

Prior to your enrollment at South Carolina State College, to what extent did you and/or your parents consider the cost of financing your education beyond the bachelor's degree?

A. Very Much
B. Somewhat
C. Very Little
D. Not at All

14 Was the cost of financing your education beyond the bachelor's degree a factor in your choice of a career?

A. Very Much
B. Somewhat
C. Very Little
D. Not at All

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Addendum for Seniors
1981 & 1982

8a. What major field did you select during your first year in college?

_____

8b. How many times did you change your major during the previous three or four years you have been in college?

_____

IF YOU DID NOT CHANGE YOUR MAJOR SINCE YOUR FIRST CHOICE WAS MADE DURING YOUR FRESHMAN YEAR, OMIT ITEMS 8c AND 8d BELOW.

8c. Which of the following best describes the major reason that you decided to change your major field of study from one area to another? PLEASE CHECK ONLY ONE.

a. I discovered that the program of study which I selected during my first years in college required too many courses which were too difficult for me to master.

b. I discovered that I was not interested in the subject area that I selected during my first years in college.

c. I realized that the major program which I had selected during my first years in college would not be very useful in preparing me for the job market unless I continued through graduate or professional school. I knew that I did not have the financial resources to continue beyond the bachelor's degree program.

d. I became aware of another program of study that I liked better than the major field which I had selected during my first years in college.

e. I changed majors because of the length of time required to complete training in the area which I had selected during my first year(s) in college.

f. I discovered another field of study which would prepare me for a job where I would be certain to earn more money.

g. It became obvious to me that I was having a problem communicating with some of the instructors in the major area which I had selected during my first years in college.

h. Other _____

8d. Of the following, who was most influential in guiding your decision to change your major from one subject area to another? PLEASE CHECK ONLY ONE.

a. My academic advisor
b. A person employed in the Counseling and Self-Development Center at SCSC
c. A person employed in the Career Planning Center at SCSC
d. A friend
e. My parent(s) or guardian(s)
f. An instructor other than my academic advisor
g. The Department Chairperson
h. Other _____

In 1982 the Gough Home Index was used as a measure of socioeconomic status because 41% of the 995 subjects who were surveyed in 1981 failed to respond to the socioeconomic status items listed below.

SECTION III.

9. With whom do you live?
   A. Both mother and father
   B. Mother only
   C. Grandparent(s)
   D. Other relatives

If you checked "A" in number 9 (above), what was the highest level of education completed by your mother? Father?

10. Mother

A. Elementary School
B. High School
C. Vocational, business, or technical school graduate
D. Some college but did not graduate
E. Four-year college degree (BS, BA, or equivalent)
F. Master's degree
G. Doctorate degree
H. Professional degree (Law, Medicine, etc.)

11. Father

A. Elementary school
B. High school
C. Vocational, business, or technical school graduate
D. Some college but did not graduate
E. Four-year college degree (BS, BA, or equivalent)
F. Master's degree
G. Doctorate degree
H. Profesional degree (Law, Medicine, etc.)

12. If you live with persons other than your mother and father, what was the highest level of education completed by the person with whom you live?

A. Elementary school
B. High school
C. Vocational, business, or technical school graduate
D. Some college but did not graduate
E. Four-year college degree (BS, BA, or equivalent)
F. Master's degree
G. Doctorate degree
H. Professional degree (Law, Medicine, etc.)

13. What was the total income of your parent(s) or guardian in the calendar year 1979 (from all sources before deductions)?

A. Less than 5,999
B. 6,000 - 8,999
C. 9,000 - 12,999
D. 13,000 - 15,999
E. 16,000 - 19,999
F. 20,000 - 23,999
G. 24,000 - 27,999
H. 28,000 - 31,999
I. 32,000 - 34,999
J. 35,000 or more
K. Don't know

If you live with your mother and father, which of the following comes closest to describing the work of your father?

14. Father

A. Farm worker (such as fruit and vegetable picker, tobacco worker, etc.)
B. Service worker (such as barber, cook, waiter, postal worker, etc.)
C. Semi-skilled worker (such as factory machine operator, cab driver, etc.)

D. Skilled worker or foreman (such as baker, inspector, etc.)
E. Clerical worker (such as bookkeeper, secretary, typist, sales, etc.)
F. Sales (such as real estate, etc.)
G. Manager (such as sales manager, store manager, office manager, business manager, etc.)
H. Proprietor or owner (such as owner of small business, wholesaler, retailer, restaurant owner, farm owner, etc.)
I. Professional (such as accountant, artist, dentist, physician, engineer, lawyer, librarian, scientist, teacher, nurse etc.)
J. Unemployed
H. Other (specify)_____

15. Mother

A. Farm worker (such as fruit and vegetable picker, tobacco worker, etc.)
B. Service worker (such as barber, cook, waiter, postal worker, etc.)
C. Semi-skilled worker (such as factory machine operator, cab driver, etc.)
D. Skilled worker or foreman (such as baker, inspector, etc.)
E. Clerical worker (such as bookkeeper, secretary, typist, sales)
F. Sales (such as real estate, etc.)
G. Manager (such as sales manager, store manager, office manager, business manager, factory supervisor)
H. Proprietor or owner (such as owner of a small business, wholesaler, retailer, restaurant owner, etc.)
I. Professional (such as accountant, artist, dentist, physician, engineer, lawyer, librarian, scientist, teacher, nurse)
J. Unemployed
K. Other (specify)_____

16. If you live with someone other than your mother and father, which of the following comes closest to describing the work of your guardian?

A. Farm worker (such as fruit and vegetable picker, tobacco worker, etc.)
B. Service worker (such as barber, beautician, etc.)
C. Semi-skilled worker (such as factory machine operator, cab driver, etc.)

D. Skilled worker or foreman (such as baker, inspector, etc.)
E. Clerical worker (such as bookkeeper, secretary, typist, sales clerk, etc.)
F. Sales (such as real estate, etc.)
G. Manager (such as sales manager, office manager, etc.)
H. Proprietor or owner (such as owner of a small business, wholesaler, retailer, restaurant owner, etc.)
I. Professional (such as accountant, artist, dentist, physician, engineer, lawyer, librarian, scientist, teacher, nurse)
J. Unemployed
K. Other (specify) _____

Items used to assess self-concept were modified during Phase II in order to obtain more specific information relative to the differences in self-concept of rural, urban, and out-of-state traditional and nontraditional majors since few differences could be observed from Phase I data. Items 38 through 48, used to measure self-concept during Phase I, are listed below.

Listed below are some statements most students face about themselves and life in general. Check to the right how you feel about each of the following statements.....		4 Most of the time	3 Some of the time	2 Seldom	1 Never
38. In a group situation, I find myself starting the activities of my group...	38				
39. I work well without close supervision...	39				
40. I get along well with others...	40				
41. I perform better than most of my classmates in math and science...	41				
42. I perform better than most of my classmates in social studies...	42				
43. I perform better than most of my classmates in subjects like English, literature, and reading...	43				
44. I perform better than most of my classmates in art, music and drama	44				
45. With respect to my physical appearance, I feel "good" about myself...	45				
46. With respect to my athletic abilities, I feel "good" about myself...	46				
47. With respect to my personality, I feel "good" about myself...	47				
48. With respect to my overall academic abilities, I feel "good" about myself...	48				

APPENDIX B
Comparison Of Traditional And Nontraditional Majors By Demographic Characteristics (Figures 1-4)

Figure 1. Histogram Comparing Most Frequently Selected Nontraditional Majors By Geographical Distribution And Sex, 1982

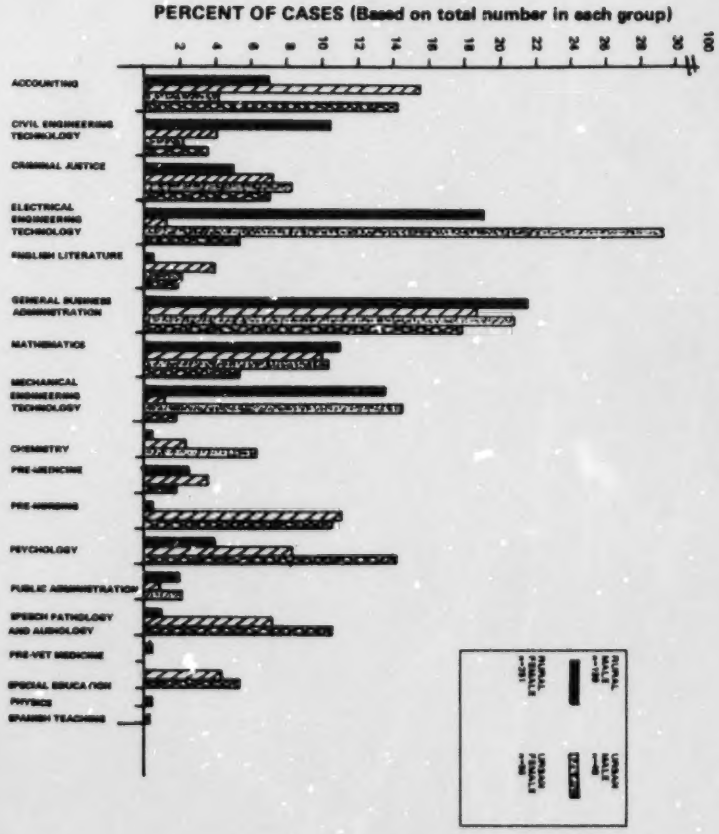

Figure 2. Histogram Comparing Most Frequently Selected Traditional Majors By Geographical Distribution And Sex, 1982

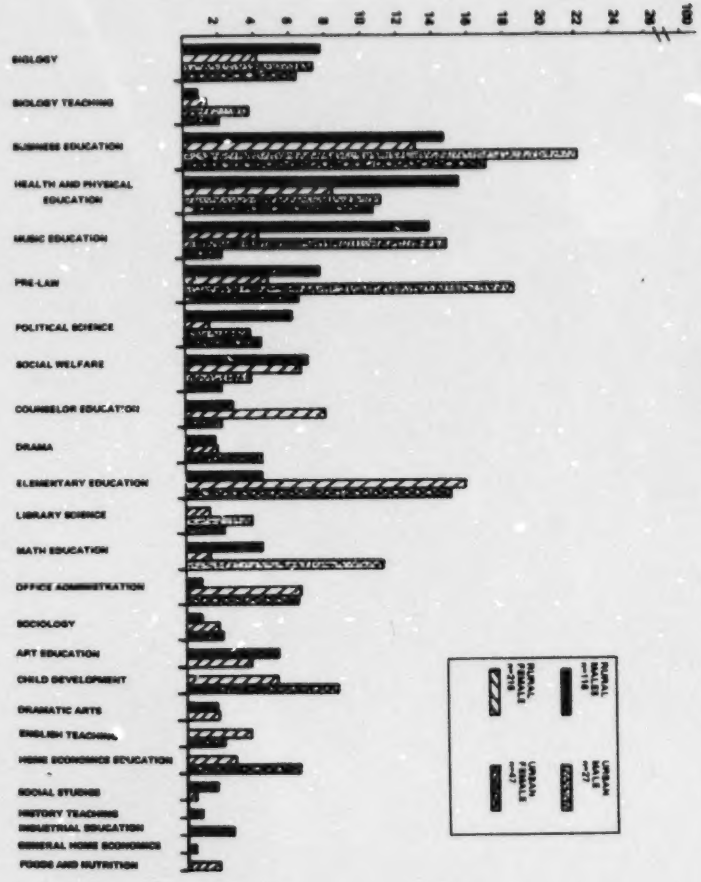

Figure 3. Histogram Comparing Most Frequently Selected Nontraditional Majors By Classification And Sex, 1982

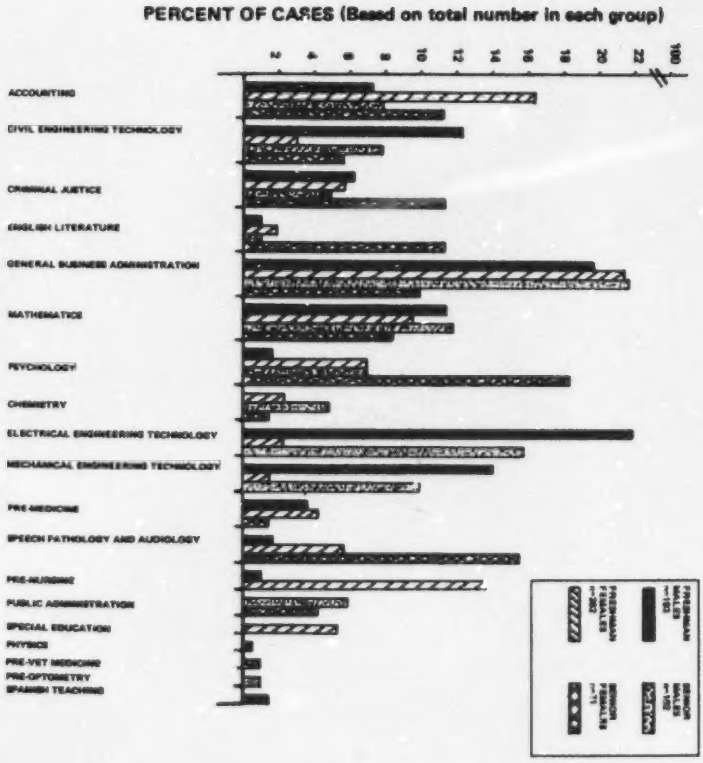

Figure 4. Histogram Comparing Most Frequently Selected Traditional Majors By Classification And Sex, 1982

APPENDIX C
Rank Order Of Nontraditional And Traditional Majors By Respondents According to Selected Demographic Characteristics (Tables A-H)

Table A
Rank Order of Nontraditional Majors by Respondents' Sex and Residence, 1982

Rural Females (N=243)			Urban Females (N=54)			Out-of-State Females (N=24)		
Rank	Major	N	Rank	Major	N	Rank	Major	N
1	General Business Adm.	47	1	General Business Adm.	10	1.5	General Business Adm.	4
2	Accounting	39	2.5	Accounting	8	1.5	Accounting	4
3	Pre-Nursing	28	2.5	Psychology	8	3	Mathematics	3
4	Mathematics	25	4.5	Pre-Nursing	6	6	English Literature	2
5	Psychology	21	4.5	Speech Pathology	6	6	Pre-Medicine	2
6.5	Speech Pathology	18	6	Criminal Justice	4	6	Pre-Nursing	2
6.5	Criminal Justice	18	8	Electrical Engineering	3	6	Psychology	2
8	Special Education	11	8	Mathematics	3	6	Speech Pathology	2
9.5	Civil Engineering	10	8	Special Education	3	10	Chemistry	1
9.5	English Literature	10	11	English Literature	1	10	Criminal Justice	1
11	Pre-Medicine	9	11	Mechanical Engineering	1	10	Public Administration	1
12	Mechanical Engineering	3	11	Pre-Medicine	1			
13.5	Public Administration	2						
13.5	Spanish Teaching	2						

Table B

Rank Order of Nontraditional Majors by Respondents' Sex and Residence, 1982

Rural Males (N = 199)			Urban Males (N = 48)			Out-of-State Males (N = 47)		
Rank	Major	N	Rank	Major	N	Rank	Major	N
1	General Business Adm.	43	1	Electrical Engineering	14	1.5	General Business Adm.	7
2	Electrical Engineering	38	2	General Business Adm.	10	1.5	Mathematics	7
3	Mechanical Engineering	27	3	Mechanical Engineering	7	4	Accounting	6
4	Mathematics	22	4	Mathematics	5	4	Civil Engineering	6
5	Civil Engineering	21	5	Criminal Justice	4	4	Electrical Engineering	6
6	Accounting	14	6	Chemistry	3	6	Mechanical Engineering	3
7	Criminal Justice	10	7	Accounting	2	8	Psychology	2
8	Psychology	8	9	Public Administration	1	8	Criminal Justice	2
9	Pre-Medicine	5	9	Civil Engineering	1	8	Pre-Medicine	2
10	Public Administration	4	9	English Literature	1	12.5	Pre-Nursing	1
11	Speech Pathology	2				12.5	Speech Pathology	1
14	Pre-Veterinary Medicine	1				12.5	Public Administration	1
14	Chemistry	1				12.5	Pre-Optometry	1
14	English Literature	1				12.5	English Literature	1
14	Physics	1				12.5	Chemistry	1
14	Pre-Nursing	1						

Table C
Rank Order of Traditional Majors by Respondents' Sex and Residence, 1982

Rural Females (N=216)			Urban Females (N=47)			Out-of-State Females (N=23)		
Rank	Major	N	Rank	Major	N	Rank	Major	N
1	Elementary Education	34	1	Business Education	8	1.5	Child Development	4
2	Business Education	28	2	Elementary Education	7	1.5	Health & Physical Education	4
3	Health & Physical Education	18	3	Health & Physical Education	5	3.5	Music Education	3
4	Counselor Education	17	4	Child Development	4	3.5	Pre-Law	3
5.5	Office Administration	14	6.5	Biology	3	6	Business Education	2
5.5	Social Welfare	14	6.5	Home Economics Education	3	6	Home Economics Education	2
7	Child Development	11	6.5	Office Administration	3	6	Sociology	2
8	Pre-Law	10	6.5	Pre-Law	3	9	Counselor Education	1
9.5	Biology	9	9.5	Drama	2	9	Political Science	1
9.5	Music Education	9	9.5	Political Science	2	9	Social Welfare	1
11.5	Art Education	8	14	Biology (Teaching)	1			
11.5	English (Teaching)	8	14	Counselor Education	1			
13	Home Economics Education	6	14	English (Teaching)	1			
15.5	Drama	4	14	Library Science	1			
15.5	Dramatic Arts	4	14	Music Education	1			
15.5	Foods & Nutrition	4	14	Social Welfare	1			
15.5	Sociology	4	14	Sociology	1			
19.5	Biology (Teaching)	3						
19.5	Library Science	3						
19.5	Mathematics Education	3						
19.5	Political Science	3						
22.5	Home Economics (General)	1						
22.5	Social Studies	1						

Table D
Rank Order of Traditional Majors by Respondents' Sex and Residence, 1982

Rural Males (N = 116)			Urban Males (N = 27)			Out-of-State Males (N = 28)		
Rank	Major	N	Rank	Major	N	Rank	Major	N
1	Health & Physical Education	18	1	Business Education	6	1	Health & Physical Education	8
2	Business Education	17	2	Pre-Law	5	2	Business Education	5
3	Music Education	16	3	Music Education	4	3	Pre-Law	4
4.5	Biology	9	4.5	Health & Physical Education	3	4	Music Education	3
4.5	Pre-Law	9	4.5	Mathematics Education	3	5	Biology	2
6	Social Welfare	8	6	Biology	2	8.5	Child Development	1
7	Political Science	7	8.5	Biology (Teaching)	1	8.5	Couselor Education	1
8	Art Education	6	8.5	Library Science	1	8.5	History	1
9.5	Elementary Education	5	8.5	Political Science	1	8.5	Industrial Education	1
9.5	Mathematics Education	5	8.5	Social Welfare	1	8.5	Mathematics Education	1
11.5	Counselor Education	3				8.5	Political Science	1
11.5	Industrial Education	3						
14	Drama	2						
14	Dramatic Arts	2						
14	Social Studies	2						
17.5	Biology (Teaching)	1						
17.5	History (Teaching)	1						
17.5	Office Administration	1						
17.5	Sociology	1						

Table E
Rank Order of Nontraditional Career Choices of Freshmen by Sex, 1982

Males (N = 193)			Females (N = 262)		
Rank	Major	N	Rank	Major	N
1	Electrical Engineering	42	1	General Business Adm.	56
2	General Business Adm.	38	2	Accounting	43
3	Mechanical Engineering	27	3	Pre-Nursing	36
4	Mathematics	22	4	Mathematics	25
5	Civil Engineering	20	5	Psychology	18
6	Accounting	14	6.5	Criminal Justice	15
7	Criminal Justice	12	6.5	Speech Pathology	15
8	Pre-Medicine	7	8	Special Education	14
9.5	Psychology	3	9	Pre-Medicine	11
9.5	Speech Pathology	3	10	Civil Engineering	8
11.5	English Literature	2	11.5	Chemistry	6
11.5	Pre-Nursing	2	11.5	Electrical Engineering	6
13	Physics	1	13	English Literature	5
			14	Mechanical Engineering	4

Table F
Rank Order of Traditional Career Choices of Freshmen by Sex, 1982

Males (N = 115)			Females (N = 176)		
Rank	Major	N	Rank	Major	N
1	Business Education	25	1	Business Education	27
2	Music Education	21	2	Elementary Education	24
3	Health & Physical Education	19	3	Counselor Education	19
4	Pre-Law	10	4	Health & Physical Education	16
5.5	Biology	5	5	Office Administration	15
5.5	Mathematics Education	5	6	Child Development	12
9	Art Education	4	7.5	Music Education	11
9	Counselor Education	4	7.5	Pre-Law	11
9	Elementary Education	4	9.5	Art Education	7
9	Industrial Education	4	9.5	Home Economics	7
9	Political Science	4	11.5	Biology	5
13	Biology (Teaching)	2	11.5	English	5
13	Social Studies (Teaching)	2	13	Drama	4
13	Social Welfare	2	14	Biology (Teaching)	3
16.5	Child Development	1	16	Dramatic Arts	2
16.5	Drama	1	16	Mathematics Education	2
16.5	Library Science	1	16	Social Welfare	2
16.5	Office Administration	1	19.5	Foods & Nutrition	1
			19.5	Political Science	1
			19.5	Social Studies (Teaching)	1
			19.5	Sociology	1

Table G
Rank Order of Nontraditional Career Choices of Seniors by Sex, 1982

Males (N = 102)			Females (N = 71)		
Rank	Major	N	Rank	Major	N
1	General Business Adm.	22	1	Psychology	13
2	Electrical Engineering	16	2	Speech Pathology	11
3	Mathematics	12	4	Criminal Justice	8
4	Mechanical Engineering	10	4	English Literature	8
5.5	Accounting	8	4	Accounting	8
5.5	Civil Engineering	8	6	General Business Adm.	7
7	Psychology	7	7	Mathematics	6
8	Public Administration	6	8	Civil Engineering	4
9.5	Chemistry	5	9	Public Administration	3
9.5	Criminal Justice	5	11	Chemistry	1
12	English Literature	1	11	Pre-Medicine	1
12	Pre-Optometry	1	11	Spanish (Teaching)	1
12	Pre-Veterinary Medicine	1			

Table H
Rank Order of Traditional Career Choices of Seniors by Sex, 1982

Males (N = 57)			Females (N = 102)		
Rank	Major	N	Rank	Major	N
1	Health & Physical Education	10	1	Elementary Education	17
2.5	Biology	8	2	Social Welfare	14
2.5	Pre-Law	8	3.5	Business Education	11
4	Social Welfare	7	3.5	Health & Physical Education	11
5	Political Science	5	5	Child Development	7
6	Mathematics Education	4	6	Sociology	6
7	Business Education	3	7.5	Pre-Law	5
9.5	Art Education	2	7.5	Political Science	5
9.5	Dramatic Arts	2	10	English (Teaching)	4
9.5	Elementary Education	2	10	Home Economics Education	4
9.5	Music Education	2	10	Library Science	4
13.5	Drama	1	12	Foods & Nutrition	3
13.5	History	1	14.5	Dramatic Arts	2
13.5	History (Teaching)	1	14.5	Drama	2
13.5	Sociology	1	14.5	Music Education	2
			14.5	Office Administration	2
			18	Biology (Teaching)	1
			18	Home Economics (General)	1
			18	Art Education	1

APPENDIX D
Distribution Of Subjects By County Of Residency
1981 and 1982

Table I

Distribution of Subjects by County of Residency, 1981 and 1982

COUNTY	1981	1982	TOTAL
Abbeville	2	1	3
Aiken	8	18	26
Allendale	5	6	11
Anderson	13	8	21
Bamberg	13	21	34
Barnwell	9	11	20
Beaufort	9	16	25
Berkeley	26	30	56
Calhoun	15	12	27
Charleston	113	95	208
Cherokee	4	6	10
Chester	32	25	57
Chesterfield	4	13	17
Clarendon	11	4	15
Colleton	19	27	46
Darlington	35	35	70
Dillon	5	8	13
Dorchester	13	20	33
Edgefield	3	0	3
Fairfield	19	6	25
Florence	36	30	66
Georgetown	35	36	71
Greenville	27	43	70
Greenwood	9	7	16
Hampton	9	9	18
Horry	7	21	28
Jasper	7	16	23
Kershaw	11	15	26
Lancaster	5	0	5
Laurens	17	16	33
Lee	14	16	30
Lexington	14	13	27
Marion	18	22	40
Marlboro	11	18	29
McCormick	3	5	8
Newberry	5	7	12
Oconee	6	3	9
Orangeburg	148	168	316
Pickens	2	3	5
Richland	48	60	108
Saluda	0	1	1
Spartanburg	20	18	38
Sumter	48	33	81
Union	4	8	12
Williamsburg	23	36	59
York	9	10	19
TOTAL	889	976	1865
OUT OF STATE	106	146	252
TOTAL	995	1122	2117